# Catalog

## 1998-1999

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# General Catalog

## 1998-99

# Mitchell Community College

This Catalog is published by Mitchell Community College as an announcement of programs and courses. Its purpose is to provide information and does not constitute a contract. The College has the right to make changes in policies and procedures and to either add or withdraw courses as needed. The information contained in the Catalog is accurate as of March 1, 1998. Interested individuals should inquire about updates/revisions as the admissions process is initiated.

# ■ DIRECTORY

If you have any questions after reviewing this publication,
please look below to find the proper office to contact:


Admissions ..... 878-
Admissions/Counselors ..... 878-3267/
Basic Skills ..... 878-
Bookstore ..... 878-
Business Office ..... 878-
Career Planning and Placement ..... 878-
Continuing Education ..... 878-
Dean of Student Services ..... 878-
Financial Aid ..... 878-
General Information/Switchboard ..... 878-
Library Services ..... 878-
Placement Testing ..... 878-
President's Office ..... 878-
Records & Transcripts ..... 878-
Veteran Services ..... 878-
Vice President for Instruction ..... 878-


Address correspondence to any office in care of:
Mitchell Community College
500 West Broad Street
Statesville, NC 28677

# ■Correspondence and Phone Directory

500 WEST BROAD STREET
STATESVILLE, N.C. 28677
(704) 878-3200 / FAX (704) 878-0872

| | |
|---|---|
| ADMINISTRATION | Dr. Douglas Eason<br>878-3205 |
| ADMISSIONS/COUNSELORS | Mary Lou Lawson<br>Douglas Rhoney<br>878-3200 |
| ADMISSIONS, RECORDS, & TRANSCRIPTS | Greg Stanley<br>878-3243 |
| BOOKSTORE | Donna Arnett<br>878-3275 |
| BUSINESS OFFICE | Larry Williams<br>878-3202 |
| COOPERATIVE EDUCATION | Randall Willie<br>878-4263 |
| CURRICULUM PROGRAMS | Dr. John Karriker<br>878-4258 |
| CONTINUING EDUCATION | Dr. William Findt<br>878-3224 |
| FINANCIAL AID | Jill Powell<br>878-3255 |
| HIGH SCHOOL DIPLOMA/GED PROGRAM | Carol Johnson<br>878-3221 |
| LIBRARY SERVICES | Rex Klett<br>878-3271 |
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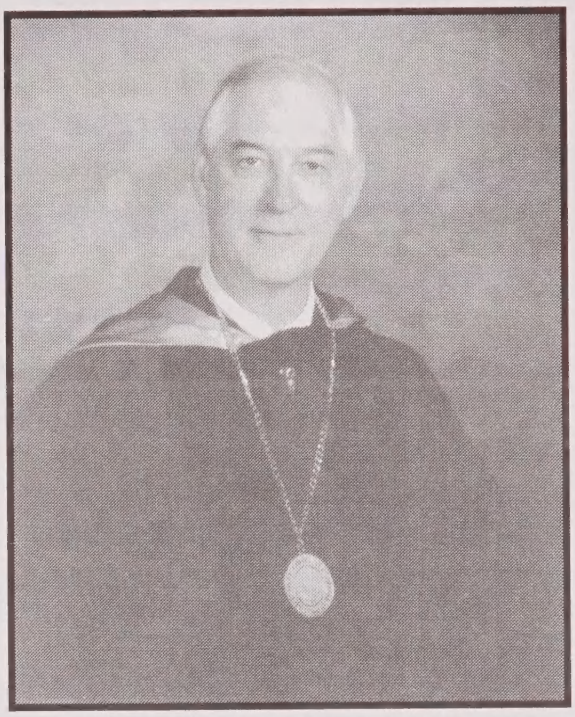
| VETERAN SERVICES | Karen W. Krider<br>878-3254 |



Greetings:

Welcome to Mitchell Community College! Our College has a fascinating 140-year history and an exciting future filled with possibilities. We prepare students to continue their studies in a wide range of fields at colleges and universities across the state, and we prepare students to enter vocational and technical fields to meet the demands of a highly-competitive work place. We also offer pre-college programs in adult basic education and literacy as well as both short and long-range occupational training in a large number of job-related fields through our Continuing Education Division. We would like to assist you in meeting any learning or training needs you or your company may have. We pride ourselves on being very "user friendly" by combining individual attention for each student with high-quality programs of instruction. We understand that ***your*** success is ***our*** success.

The publication you have before you is intended to give an overview of the College and the programs of study we offer. We hope you will review the material provided and will make good use of the information about our institution. While it is impossible to anticipate every question a person might ask, we have tried to collect the most important information available about Mitchell Community College. If you do not find what you are looking for here, we hope you will visit one of our campuses or call us so that we can assist you in finding the answers to any questions you may have. Through education and training, we would like to help you make a wise investment in your future.

Sincerely yours

Douglas O. Eason

Douglas O. Eason
President

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Mitchell Community College, Statesville, North Carolina
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# Mitchell Community College
## Academic Calendar 1998-99

### Summer Semester 1998

| | | | |
|---|---|---|---|
| May | 18 | Monday | Registration |
| | 19 | Tuesday | Faculty Workday |
| | 20 | Wednesday | Summer Semester Classes Begin |
| June | 23 | Tuesday | Midterm |
| July | 2-3 | Thursday & Friday | Summer Break (*No Classes*) |
| | 6 | Monday | Classes Resume |
| | 9 | Thursday | Last day to withdraw from a class or school without a grade of "F" |
| | 21 | Tuesday | Mooresville Center Fall Registration |
| | 23-28 | Thursday-Tuesday | Final Exams & End of Summer Semester |
| | 29-31 | Wednesday-Friday | Fall Semester Advising & Early Registration |

### Fall Semester 1998

| | | | |
|---|---|---|---|
| August | 19 | Wednesday | Registration |
| | 20-21 | Thursday & Friday | Faculty Workdays |
| | 24 | Monday | Fall Semester Classes Begin |
| September | 7 | Monday | Labor Day (*No Classes*) |
| October | 9 | Friday | Midterm |
| | 12-13 | Monday & Tuesday | Fall Break |
| | 21 | Wednesday | Last day to withdraw from a class or school without a grade of "F" |
| November | 9-13 | Monday - Friday | Spring Semester Advising & Early Registration |
| | 17 | Tuesday | Mooresville Center Spring Registration |
| | 26-27 | Thursday & Friday | Thanksgiving Holidays (*No Classes*) |
| December | 15-18 | Tuesday - Friday | Final Exams & End of Fall Semester |
| | 21-31 | | Winter Holiday |
| January | 1 | Friday | New Year's Holiday |

### Spring Semester 1999

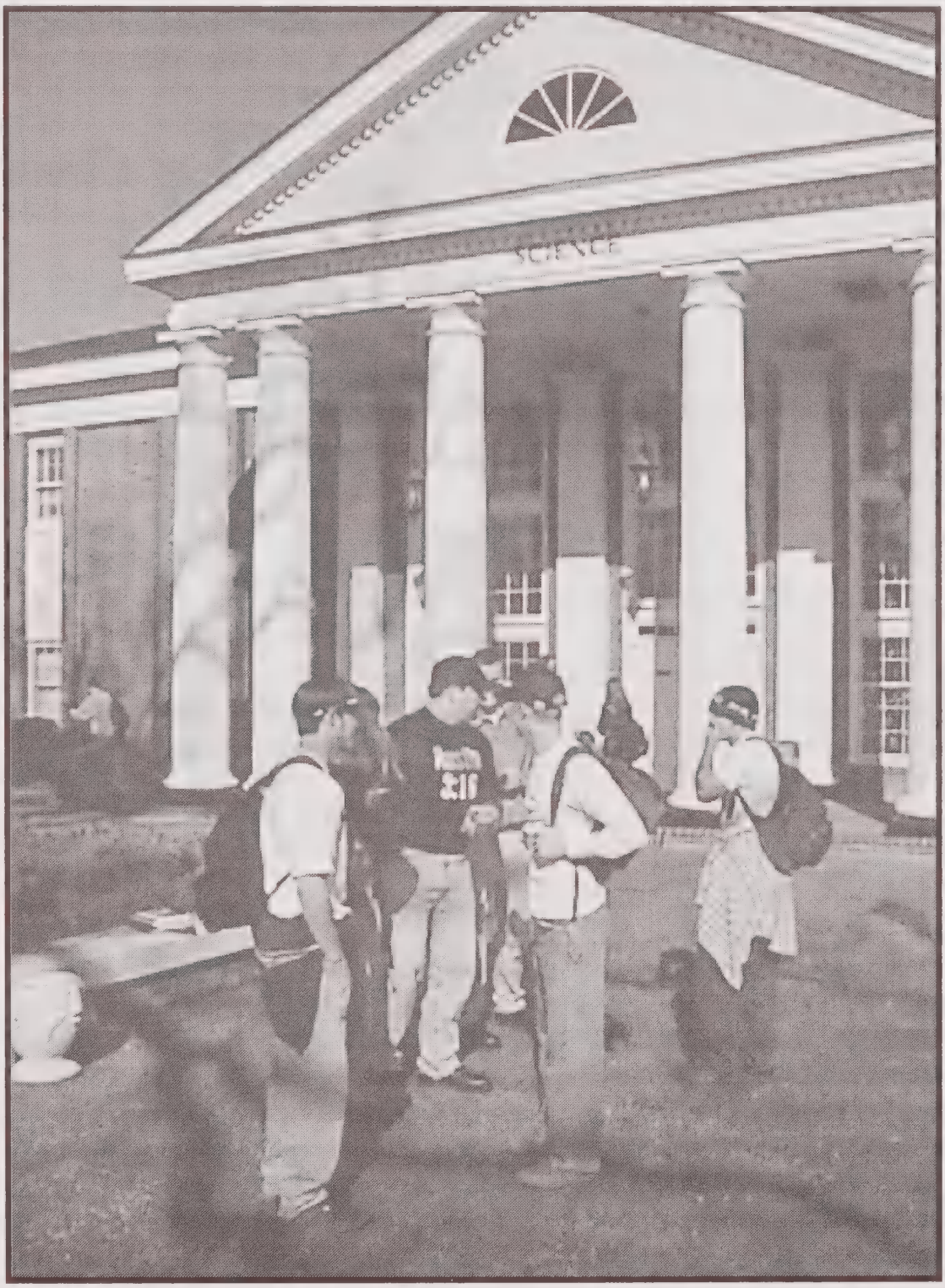
| | | | |
|---|---|---|---|
| January | 4 | Monday | Faculty Workday |
| | 5 | Tuesday | Registration |
| | 6 | Wednesday | Faculty Workday |
| | 7 | Thursday | Spring Semester Classes Begin |
| | 18 | Monday | Martin Luther King Holiday (*No Classes*) |
| March | 1-5 | Monday - Friday | Spring Break (*No Classes*) |
| | 8 | Monday | Classes Resume |
| | 9 | Tuesday | Midterm |

| | | | |
|---|---|---|---|
| March | 15 | Monday | Last day to withdraw from a class or school without a grade of "F" |
| April | 14-16 | Wednesday-Friday | Summer Semester Advising & Early Registration |
| | 20 | Tuesday | Mooresville Center Summer Registration |
| April | 30 - | | |
| May | 5 | Friday - Wednesday | Final Exams & End of Spring Semester |
| | 7 | Friday | Graduation |

**SUMMER SEMESTER 1999**

| | | | |
|---|---|---|---|
| May | 17 | Monday | Registration |
| | 18 | Tuesday | Faculty Workday |
| | 19 | Wednesday | Summer Semester Classes Begin |
| July | 5 | Monday | Summer Break (*No Classes*) |
| | 20 | Tuesday | Mooresville Center Fall Registration |
| | 26-27 | Monday & Tuesday | Final Exams & End of Summer Semester |
| | 28-30 | Wednesday - Friday | Fall Semester Advising & Early Registration |

# General Information



## Institutional Description

Mitchell Community College, founded in 1852, is a comprehensive, open-admissions community college dedicated to meeting the post-secondary education and training needs of the citizens of Iredell County and surrounding areas. The college provides an array of high-quality programs at low cost in an historically rich environment. Mitchell is a student-centered institution where all persons are encouraged to develop their abilities in a community that respects diversity and is supportive of individual achievement. Concerned with the social, civic, cultural, and economic development of the community as a whole, instructional programs are focused on meeting the educational and training needs of all persons over eighteen years of age and persons sixteen years of age and older with special needs.

## Location

Mitchell Community College is located in piedmont North Carolina, downtown Statesville, in the foothills of the Blue Ridge Mountains. Interstate Highways 40 and 77 intersect on the outskirts of the city. Statesville is situated approximately 50 miles north of Charlotte, and 50 miles southwest of Winston-Salem. The population of Statesville and Iredell County is approximately 92,000.

## Mission

Mitchell Community College is committed to providing affordable, high-quality educational programs and opportunities for lifelong learning which meet the dynamic and diverse needs of our community.

## Purpose

Mitchell Community College commits its resources to the following purposes:
to provide associate degree, diploma, and certificate programs to meet the pre-service and in-service manpower needs for industry, business, government, and service occupations;
to provide associate degree programs for the first two years of academic courses leading to baccalaureate and professional degrees; to provide each student the opportunity to develop the skills and values necessary to succeed in college; to serve the adult population with basic education and salable skills; to enhance personal development through general and continuing education.

## Belief Statements

The faculty, staff and administration of Mitchell Community College are committed to the philosophy of the comprehensive community college. We believe, therefore,

*That the student is the focal point of all efforts of the college; That we are a college community that respects diversity and is supportive of individual achievement; That Mitchell Community College has a responsibility to enhance the social, civic, cultural, and economic development of the community ; That Mitchell Community College has a responsibility to enhance the quality of life of the community; and That the door of opportunity for learning should be open to all who seek personal and professional development.*

## Accreditation

Mitchell Community College is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, telephone number 404-679-4501) to award the Associate of Arts, Associate of Science, Associate of Fine Arts and Associate of Applied Science degrees.

## Membership

Mitchell Community College is a member of:

Carolinas Association of Collegiate Registrars and Admissions Officers
National Association of Veteran Program Administrators
National Association of Student Financial Aid Administrators
Southern Association of Colleges and Schools
The National Institute for Staff and Organizational Development
American Community College Business Officers
American Association of Community Colleges
National Council on Black American Affairs
American Association of Women in Community Colleges
North Carolina Association of Colleges and Universities
Professional Secretaries International
Charlotte Area Educational Consortium
Mooresville-South Iredell Chamber of Commerce
Greater Statesville Chamber of Commerce
North Carolina Citizens for Business and Industry
Association of Community College Trustees
North Carolina Association of Community College Trustees
North Carolina Association of Coordinators of Veterans Affairs

## Veterans

Persons enrolled in an approved program at Mitchell Community College may be eligible to receive Veteran's educational benefits if they qualify.

# Admissions, Expenses and Financial Aid

# ■ Admission

Mitchell Community College subscribes to the "Open Door" policy as set by the North Carolina Department of Community Colleges. It should be noted that a high school diploma or GED is required for entry into all post-secondary programs. The GED diploma serves as Mitchell's test of a student's ability to benefit from instruction. Mitchell Community College is an equal educational opportunity institution; and in keeping with this policy, the college serves students without regard to race, color, sex, religion, creed, handicap, age or national origin.

## Admission and Ability to Benefit Requirements

- High school graduate or GED equivalency diploma.
- Minimum age of 18 without a high school diploma or its equivalent qualifies for a "Special Credit Student".
- Minimum age of 16 with identified special needs and written permission from high school principal and/or superintendent of the school system the student would normally attend.

## Admission Process

Completion of the following is required for all curriculum programs:

- Completed application;
- High school and college (if transfer student) transcripts; and
- Placement tests.

## Admission-Allied Health Programs

*Associate Degree Nursing* - The Department of Nursing understands and accepts the concept of the open-door policy for general admission to Mitchell Community College. Admission to the college does not, however, ensure admission to the Associate Degree Nursing Program. Admission into the nursing program is competitive. In addition to the Mitchell Community College requirements for admission, the following are basic requirements for consideration of admission to the Associate Degree Nursing Program:

1. Completion of the following pre-requisite courses with a grade of "C" or better within the last seven years or demonstration of competency through challenge exam:
   - One year of high school Chemistry and/or CHM 130 - General, Organic and Biochemistry or its equivalent.
   - One year of high school Biology and/or BIO 111 - General Biology I or its equivalent. (Additional high school advanced sciences are strongly encouraged.)
2. Completion of a Nursing Assistant I course within the last two years prior to enrollment in NUR courses; or if the individual has completed the NAI course more than two years prior to enrollment in NUR courses, employment as a NAI for at least six months within the last two years prior to entering nursing courses will be required.
3. Completion of the College Board Computerized Placement Tests with minimum scores of:
   - 92 - in Reading
   - 98 - in Sentence Skills (English)
   - 78 - in Arithmetic
   - 46 - in Elementary Algebra

   (Test score minimums are subject to review and change)
   For a score less than any of those stated above the student is required to retest following satisfactory completion of remedial work and upon presenting written verification of completion of such work.

4. Maintenance of at least a 2.5 grade point average in previous college work or in high school courses taken.
5. Validation of satisfactory physical and emotional health and current immunizations will be required of every applicant, after receipt of conditional acceptance and prior to final admission into the nursing program.
6. Current certification in CPR by time of enrollment into the clinical nursing component.
7. Satisfactory completion of drug screening and criminal record check.

*Medical Assisting and Phlebotomy* - A high school diploma or equivalent as established by the GED test is required. Students with scores that fall below test score minimum will be required to take and successfully complete prescribed developmental courses.

## Re-Admissions

Applications for readmission are required of all students for whom one academic year has elapsed since their last enrollment. Students must submit an application through the Admissions Office and be advised by a curriculum advisor concerning changes in their curriculum since their last date of attendance; any new degree or diploma requirements will be clarified at that time. Applicants for readmission to limited enrollment programs must follow regular admission procedures for those programs.

## Admission-Transfer

Transfer students may enter Mitchell Community College upon completing the process outlined above. Official transcripts of all previous college course work must be submitted. Credit will be granted whenever possible, as stated in the Transfer of Credits Policy.

## Admission-Visiting Students

A student who has been accepted by or is enrolled at another institution may enroll at Mitchell Community College as a visiting student. Such students must complete an application and should have the permission of an appropriate official at the home institution. This official should specify the courses to be taken at Mitchell. The student should enroll in only the specified courses and then only if the required prerequisite courses or their equivalents have been completed.

## Dual Enrollment Students

Dual enrollment allows high school students to enroll at Mitchell Community College to enrich their education experience and gain college credit while remaining in high school. In order to meet the requirements of the program, a student must be 16 years of age or older, be attending high school half-time, and must submit a dual enrollment form signed by the appropriate high school official. Dual enrollment students must meet standard pre-requisite requirements for courses and are not eligible for developmental course work. Tuition is not charged, but students must pay fees and buy required texts and materials.

## Admission-Continuing Education

Students who are high school graduates or 18 years old or 16 years old with special permission are eligible to enter a Continuing Education Program. Further information is available in the Continuing Education section of this publication.

## Special Credit Students

A special credit student is defined as one who is enrolled in curriculum credit courses but who is

not working toward a degree, diploma or certificate. Special credit students will be allowed to register for courses provided that prerequisite requirements are met. For admission, special credit students need only complete the application which is available in the Admissions Office. Special students, however, will be asked to submit proof of high school graduation and meet placement criteria if they desire to be reclassified as regular students. Special students will pay the same tuition and fees as regular students.

## Placement Testing

Mitchell recognizes that due to our "open door" admission policy, not all matriculating students are able to pursue college-level courses upon enrolling. Because of this, all program students are required to take the Computerized Placement Test (CPT) to assess skill levels in reading, writing, arithmetic, algebra and keyboarding. Based on scores, students are required to complete developmental courses before enrollment in college-level courses. In competitive admission programs, the admissions requirements are such that a certain reading and arithmetic competency must be demonstrated before enrollment. Examples of competitive admission programs are Associate Degree Nursing and Medical Assisting.

## Transfer of Credits

Educational work taken at a regionally accredited institution in which a grade of "D" or better was earned and a comparable course is offered at Mitchell Community College may be accepted if transfer is appropriate to the student's program of study, provided the student has an overall "C" average. If the overall average is less than 2.0, only grades of "C" or better will be accepted. Work at institutions which are not regionally accredited is evaluated on the basis of the current issue of Report of Credits Given by Educational Institutions published by the AACRAO and similar publications. Credit toward programs may be accepted from other agencies at the discretion of the college. Final acceptance or rejection of transfer credits lies with the college. A minimum of 20 semester hours credit in the student's program of study must be earned at Mitchell to be eligible for graduation.

## International Applicants

Proficiency in the English language and satisfactory academic records are important factors in the admission decision for all applicants from outside the United States. International students must have graduated from a secondary school that is equivalent to secondary schools in the United States. Furthermore, the Test of English as a Foreign Language (TOEFL) and the College placement tests are required of all international applicants. Students should contact a university in their native land for information about the Test of English as a Foreign Language. Foreign applicants should write to the Admissions Office at Mitchell Community College for additional information.

## Residency Requirement

Under North Carolina Statute 116-142.1, a person must qualify as a resident for tuition lower than that for nonresidents. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least twelve months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to "maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant, who must show his or her entitlement

by the preponderance (the greater part) of the residentiary information. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination. Further information and necessary classification forms may be obtained from the Director of Admissions and Records. Regulations concerning the classification of students by residence are set forth in "A Manual to Assist The Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." A copy of the manual is available in the Office of the Dean of Student Services.

## Change of Program

Students who change from one program to another within the institution will have credit hours and quality points transferred according to the requirements of the new program. Only courses completed within the new program will be used to calculate the grade point average for graduation purposes.

## College Level Examination Program

Credit may be allowed for up to 20 semester hours of college work based on CLEP General Examination scores appropriate to the student's program of study.

## The College Board Advanced Placement Program

Credit may be allowed for up to 20 semester hours of college work based on exams as given through the College Board Advanced Placement Program. Scores on the exams must be three, four, or five. Credit is allowed only if appropriate to the student's program of study.

## Military Service Experience

Veterans may receive credit for USAFI courses and for service school training where appropriate to the student's program and where a comparable course is offered by the college. USAFI courses are evaluated on the basis of the catalog of the USAFI. School Service Training is evaluated on the basis of *A Guide to the Evaluation of Educational Experiences in the Armed Services*, published by the American Council on Education. Credit, not to exceed two semester hours, is allowed for physical education to veterans upon presentation of discharge or separation papers appropriate to the veteran's course of study. Final acceptance or rejection of the credit lies with the college.

## Drug and Alcohol Policy

The abuse and use of drugs and alcohol are subjects of immediate concern in our society. These problems are extremely complex and ones for which there are no easy solutions. From a safety perspective, the users of drugs or alcohol may impair the well-being of all employees, students, and the public at large; drug and alcohol usage may also result in damage to college property. Therefore, it is the policy of this college that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance or alcohol is prohibited while in the workplace, on college premises, or as part of any college-sponsored activities. Any employee or student violating this policy will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution. The specifics of this policy are as follows:

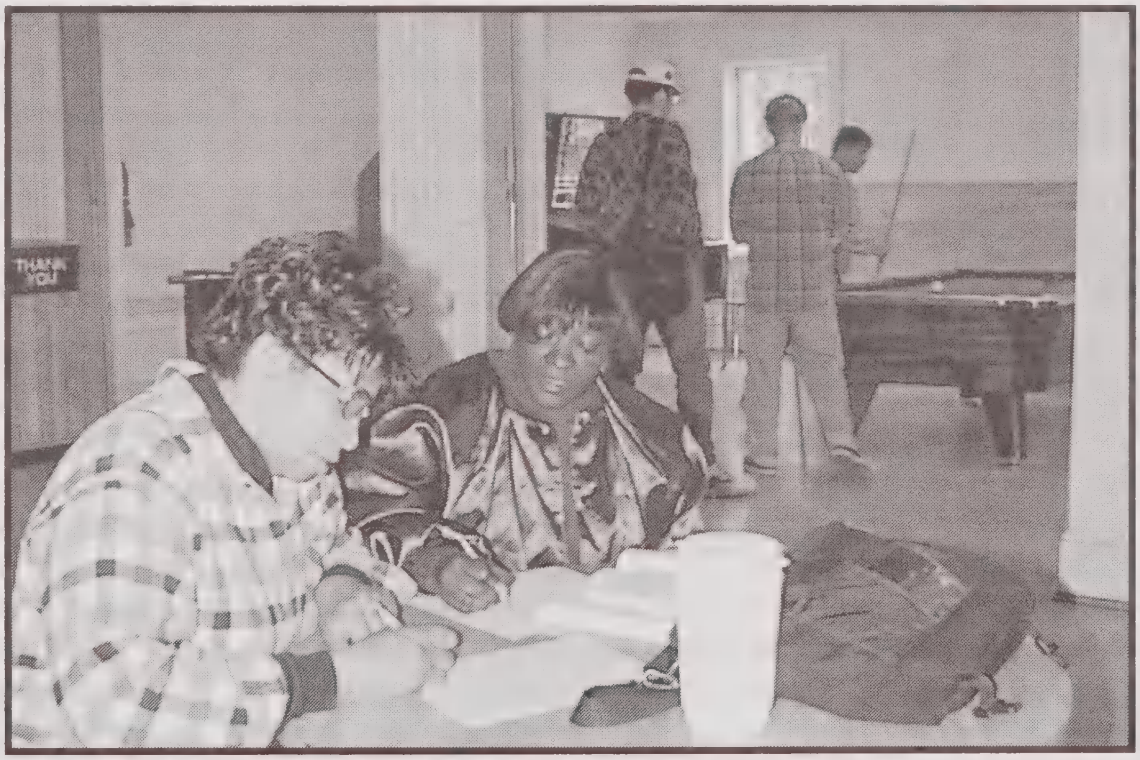
Mitchell Community College does not differentiate between drug users, drug pushers, or sellers. Any employee or student who possesses, uses, sells, gives, or in any way transfers a controlled substance while in the workplace, on college premises, or as part of any college-sponsored activity, will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution.

The term "controlled substance" means any drug listed in 21 CFR Part 1308 and other federal regulations, as well as those listed in Article V, Chapter 90, of the North Carolina General Statutes. Generally, these are drugs which have a higher potential for abuse. Such drugs include, but are not limited to, heroin, marijuana, cocaine, PCP, and crack. They also include "legal drugs" which are not prescribed by a licensed physician. If any employee or student is convicted of violating any criminal drug statute while in the workplace, on college premises, or as part of any college sponsored activity, he or she will be subject to disciplinary action up to and including termination or expulsion. Alternatively, the college may require the employee or student to successfully finish a drug abuse program sponsored by an approved private or governmental institution as a precondition for continued employment or enrollment at the college. Each employee or student is required to inform the college, in writing, within five (5) work days after he or she is convicted for violation of any federal, state, or local criminal drug statute where such violation occurred while in the workplace, on college premises, or as part of any college sponsored activity. A conviction means a finding of guilt (including a plea of nolo contender) or the imposition of a sentence by a judge or jury in any federal or state court. Convictions of employees working under federal grants for violating drug laws in the workplace, on college premises, or as part of any college sponsored activity, shall be reported to the appropriate federal agency. The College must notify the U.S. government agency with which the grant was made within ten (10) days after receiving notice from the employee or otherwise receives actual notice of a violation of a criminal drug statute occurring in the workplace. The college shall take appropriate disciplinary action within 30 days from receipt of notice. As a condition of further employment on any federal government grant, the law requires all employees to abide by this policy. Students employed under the College Work Study Program are considered to be employees of the college, if the work is performed for the college in which the student is enrolled. For work performed for a federal, state, local public agency, a private nonprofit or a private for-profit agency, students are considered to be employees of the college unless the agreement between the college and the organization specifies that the organization is considered to be the employer. Any employee or student who unlawfully possesses, uses, sells or transfers alcoholic beverages to another person while in the workplace, on college premises, or as part of any college-sponsored activity, will be subject to disciplinary action up to and including termination or expulsion and referral for prosecution. If an employee or student is convicted of violating any alcoholic beverage control statute while in the workplace, on college premises, or as part of any college sponsored activity, he or she will be subject to disciplinary action up to and including termination or expulsion. Alternatively, the college may require the employee or student to successfully finish an alcoholic rehabilitation program, sponsored by an approved private or governmental institution as a precondition for continued employment or enrollment at the college.
The term "alcoholic beverage" includes beer, wine, whiskey, and any other beverage listed in Chapter 188 of the General Statutes of North Carolina.

## Communicable Disease Policy For Mitchell Community College

Mitchell Community College places a high priority on the need to prevent the spread of serious communicable diseases on its campuses. The college is committed to educating its staff, students, and the community about serious communicable diseases. Specifically, because there is currently no cure or vaccine for Acquired Immune Deficiency Syndrome (AIDS), education regarding methods by which this virus may be transmitted and how to prevent transmission is essential. By adopting this policy, it is the intention of the college to promote the health and regular school attendance of its students so that they may attain their maximum potential for learning. In keeping with the open access policy of Mitchell Community College, students with serious communicable

diseases may attend college whenever, through reasonable accommodation, the risk of transmission of the disease and/or the risk of further injury to the student or to other students and/or faculty is sufficiently remote in such setting as to be outweighed by the detrimental effects resulting from the exclusion of the students from college. Placement decisions will be made by using this standard in conjunction with current, available public health department guidelines concerning the particular disease in question. Individual cases will not be prejudged; rather, decisions will be made by health care professionals based upon the facts of the particular case. The determination of whether a student with a serious communicable disease may attend college shall be made by the President in accordance with procedures implemented by the College. The President's decision shall be based upon expert medical advice and will include consultation with all interested parties. The college shall respect the right to privacy of any student who has a serious communicable disease. The student's medical condition shall not be disclosed. If necessary, it is to be discussed only with the President or his designee and only to the extent necessary to minimize the health risks to the student and others on campus. The number of personnel aware of the student's condition will be kept to the minimum needed to assure proper care of the student and to detect situations in which the potential for transmission of the disease may increase. Persons deemed to have a "direct need to know" will be provided with the appropriate information; however, these persons shall not further disclose such information. Faculty may offer students the opportunity to reveal medical conditions as a matter of promoting the students' own safety in the event of an unexpected medical crisis while the students are on campus.



# ■ Continuing Education

Mitchell Community College strives to provide academic and occupational programs consistent with the educational needs of Iredell and surrounding counties. The college provides opportunities for people to further meet their educational goals by offering programs which enable people to pursue vocational, cultural, and civic interests. Courses include formal academic learning, cultural advancement, vocational and technical improvement, and personal enrichment. Classes are generally held at the Continuing Education Center located at 701 West Front Street in Statesville. Continuing Education classes are also offered at the Mooresville Center, 219 North Academy Street in Mooresville, and at various other locations throughout Iredell County. Continuing Education Units (CEU's) are awarded for some classes. CEU's are not awarded for Adult Basic Education, Adult High School and craft classes. A CEU is defined as "ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction." These units provide a means of recording and accounting for non-credit courses, programs, and activities. Programs and courses within Continuing Education may be categorized as either Community Service, Occupational Extension, Basic Skills Programs, or Business and Industry Services. For information please telephone (704) 878-3220.

## Community Service

Community service programs are offered which contribute to the cultural, civic, and personal enrichment of the citizens of Iredell County. Programs are sponsored which contribute to the quality of life of the community. Programs offered include cultural enrichment and civic activities, academic courses and practical skills courses.

## Occupational Extension

Programs are offered in occupational extension that contribute to the economic development of the region. Training and upgrading of skills are provided for the specific requirements of individuals, businesses, and industries.

## Attendance

Class dates and times are publicized through brochures, the local newspaper, and on radio stations. Regular attendance should be maintained throughout a class. In general, 80 percent attendance is required to earn a certificate and satisfactory grade, but in some programs attendance requirements are higher.

## Fees and Supplies

There is generally a registration fee of $35.00 for occupational courses and community service classes. Those students enrolled in courses for Basic Skills, volunteer fire department training, local law enforcement training, or the Department of Corrections are exempt from the registration fee. When self-supporting classes are sponsored, charges are whatever is necessary to pay for the class. Books and limited supplies are available through the college bookstore. Costs vary according to individual courses.

## Registration Fee Refunds

A refund shall not be made except under the following circumstances:

- A student who officially withdraws from an extension class(es) prior to the first class meeting will be eligible for a 100 percent refund. Also, a student is eligible for a 100 percent refund if an applicable class fails to "make" due to insufficient enrollment.

- After the respective class begins, a 75 percent refund shall be made upon the request of the student if the student officially withdraws from the class prior to or on the 20 percent point of the scheduled hours of the class. Note: This rule is applicable regardless of the number of times the class meets or the number of hours the class is scheduled to meet.
- For contact hour classes, a student who officially withdraws from an extension class(es) prior to the first class meeting will be eligible for a 100 percent refund. Also, a student is eligible for a 100 percent refund if an applicable class fails to "make" due to insufficient enrollment. After a contact hours class begins, a 75 percent refund shall be made upon the request of the student if the student officially withdraws from the class prior to 10 calendar days from the first day of the class(es).
- Where a student, having paid the required registration fee for a term, dies during that term (prior to or on the last day of examinations of the college the student was attending), all registration fees for that term may be refunded to the estate of the deceased.

## Basic Skills Programs

Outlined below are the programs presently offered through the Mitchell Community College Division of Continuing Education.

***Adult Basic Education (ABE)*** - designed to assist adults in the fundamentals of English, math, and reading. Upon completion of ABE, students may enroll in the GED Program.
FEE: No Charge.

***General Educational Development (GED)*** - High School Equivalency Program - designed to test a person's knowledge in five areas: English, math, reading, natural science, and social studies. Upon satisfactory completion of tests, which are administered one week during each month, the Equivalency Diploma is issued by the North Carolina Department of Community Colleges. The GED is recognized as the equivalent of a high school diploma. To qualify for this program, you must:

- Be a legal North Carolina resident;
- Be at least 18 years old or 16 years old with a special need and completion of a form available from the GED examiner of the Continuing Education Office and permission from the superintendent of schools and parents. This form is to be notarized.

FEE: $7.50 initial testing fee.

***Learning Labs*** - provide adults with individually scheduled, planned, and paced instruction. Mitchell Community College has two Learning Labs - one located in Statesville at the Continuing Education facility and the other at the Mooresville Center.

| | | |
|---|---|---|
| Statesville Hours: | Monday-Thursday | 8:00 a.m. - 9:00 p.m. |
| Mooresville Hours: | Monday-Thursday | 8:00 a.m. - 2:00 p.m. |
| | Tuesday & Thursday | 6:00 p.m.-9:00 p.m. |

FEE: No charge.

***English As A Second Language/Citizenship*** - English as A Second Language is for foreign-born students who would like to improve their English communication skills, including speaking, reading, and writing. Preparation for U.S. citizenship is also available.

## Business and Industry Services

### *Small Business Center*

The purpose of the Small Business Center is to attract, train, counsel, and provide educational services for existing and prospective small business owners and employees. The mission of the Small Business Center is to be active in the economic growth of Iredell County by providing assistance to small businesses in order to increase the number of start-ups, expand existing small businesses, and reduce the number of small business failures. Seminars, workshops, and

courses designed for small business owners and employees are offered each semester. Many of the seminars and workshops are provided at no cost to the participant or for a nominal fee. Expert presenters from all areas of North Carolina are brought to the campus to assist in meeting the training needs of small businesses. The Small Business Center also provides a wide array of courses in computer technology. A variety of short courses is available providing training on various software packages: word processing, spreadsheets, databases, desktop publishing, computerized accounting, and presentation programs. The cost for these computer workshops is $50 per session plus textbook. In addition to educational programming, the center provides networking opportunities for clients with the many other resources available to assist the small business owner, particularly the Small Business Technology and Development Center, Winston-Salem State University.

### *New and Expanding Industry*

This program provides for the training needs of industries new to Iredell County and also for existing companies that are undergoing a major expansion which results in the addition of twelve or more new production jobs. The training program is administered by Mitchell Community College and serves the total college service area of Iredell County. The State of North Carolina funds the new and expanding industry program, with the funds being supplemental to the overall college operational budget. The training programs are designed cooperatively with the industry and local college personnel, with customization the primary criteria for meeting the particular needs of each industry. Flexible and custom-designed, the program can accommodate almost any job found in a manufacturing or service company.

### *Focused Industrial Training*

The Focused Industrial Training Program was created by the North Carolina Community College System to strengthen the partnership for training between the private industrial community and the local community college in an effort to maintain a trained workforce on an on-going basis. This program is able to address changes in new technologies by providing customized training. Focused Industrial Training can serve the training needs of an existing industry's skilled and semi-skilled workers through a cooperative effort in assessing training needs and delivery of training associated with industrial occupations. This program fills training needs which fall outside the guidelines for occupational extension, new and expanding industry, and the vocational and/or technical curriculum.

### *Mooresville Center*

The newly expanded Mooresville Center is located at 219 North Academy Street in Mooresville. The facility includes a Learning Lab which offers Basic Skills preparation and GED preparation, three computer labs (which include the Matsushita Computer Room), a modern networking lab, and classroom space for curriculum and continuing education classes. Curriculum courses offered at the Mooresville Center throughout the year include: College Transfer, Accounting, Business Administration, Information Systems, Medical Assisting and Phlebotomy. Other classes offered at the center include English as a Second Language (ESL), occupational extension courses, new and expanding industry training, community service courses, Small Business seminars, and a wide array of allied health classes.

The Mooresville Center hours of operation are from 8:00 a.m. to 10:30 p.m., Monday through Thursday, and 8:00 a.m. to 4:00 p.m. on Friday. Weekend classes are scheduled on a regular basis. Please telephone the center at 663-1923 for further information.

# ■ Expenses

## Student Charges and Refunds

Tuition charges are set by the State Board of Community Colleges and are subject to change without notice. Tuition and fees for each semester are payable on or before the date of registration. Any student who is unable to make payment at that time must make a special arrangement with the Financial Aid Office. Written verification for third party billing must be received by the Business Office before a student will be allowed to register without making payment at the time of registration. A student who has an outstanding balance due to the college is not eligible for re-registration. No student will be allowed to graduate, receive a diploma or certificate, or a transcript of their records, nor will any information concerning their records be forwarded to any other institution or other person so long as the delinquent account is outstanding.

## General Guidelines For Student Charges and Refunds

***Tuition:*** Current tuition charges are $20.00 for in-state and $163.00 for out-of-state per semester hour with a maximum charge of $280.00 and $2,282.00 per semester, respectively.
***Exceptions:*** Students who have paid tuition at one institution and who are given permission to transfer to another institution shall be issued a letter verifying payment has been made for the semester. The institution to which they are transferring will accept the permission letter in lieu of payment. A student may enroll for the same semester at two or more institutions within the North Carolina Community College System. The total amount of tuition paid may not exceed the maximum charge. N.C. residents 65 or over are not required to pay tuition.
***Refunds:*** Mitchell Community College issues tuition refunds according to the North Carolina state policy as published in section 2D.0200 of the North Carolina Administrative Code. That code permits full tuition refunds if a student withdraws prior to the beginning of the first day of classes. A 75 percent refund may be made upon request of the student if the student officially withdraws from the class(es) prior to or on the official 20 percent point of the class(es) or the 20 percent point of the semester if the student officially withdraws from the college. Request for refunds will not be considered after the 20 percent point. Student activity fees and special course fees are not refunded. Students receive full refunds for classes canceled by the College. If a student dies during the semester, all tuition and fees for the semester are refunded to the estate of the deceased.
***Library Fines:*** A fee for lost books and over-due books is charged. If a lost book fee is charged and the book is later found and returned, the fee is refunded.
***Graduation Fees:*** $30.00 ($10.00 for each additional degree). These fees are non-refundable.
***Audit Fee:*** Regular tuition charges apply for classes taken for audit.
***Student fee:*** All students are charged $1.00 per semester hour up to twelve credit hours (full-time). All expenditures from these funds are related directly to student activities.
***Exceptions:*** Persons who are employed as law enforcement officers are not charged a student activity fee. Documentation must be presented at the time of registration.
***Transcripts:*** No transcript is released without the written permission of the student and twenty-four-hour notice is required. Transcripts will not be released until all financial obligations to the College have been met.
***Books:*** Cost of books will vary from program to program; however, most students pay an estimated $600 for books for the academic year.
***Special Fees:*** Fees, in addition to tuition, may be charged in some courses to cover the costs of supplies, facility charges, and materials. Students may also be required in certain courses to purchase tools and supplies. Fees are only refundable before the first day of the academic term.

## Veteran/Dependent/National Guard/ Reserve Assistance

***Eligibility***: Persons enrolled in an approved program at Mitchell Community College may be eligible to receive Veteran's educational benefits if they qualify.
***Exclusions:*** Audited courses, independent study courses, credits by exam, courses taken outside of the curriculum, repeated courses with a passing grade, or any other courses not counted toward graduation will not be used in calculating hours for payment purposes.
***Attendance:*** Recipients are paid for class attendance. A student who withdraws from class must notify the Assistant Financial Aid Officer immediately to avoid overpayment. The student is responsible for notifying the Assistant Financial Aid Officer and the Director of Admissions and Records Office of any reason for non-attendance. Veterans are mailed attendance sheets at the beginning of each semester to be completed and signed by the instructor. On each reporting date indicated on the form, the Veteran is required to return this sheet to the Assistant Financial Aid Officer/Veterans Coordinator. In addition, the Department of Veteran Affairs will mail a Certification of Attendance to the Veteran to be completed. The Veteran should mail this completed form back to the Department of Veteran Affairs immediately to avoid a lapse in payment.
***Standards of Progress:*** Recipients must meet the requirements for academic progress as set forth in the *Catalog* and the *Student Handbook*. Any recipient whose overall GPA in the current major is below school standards will be placed on academic probation. If at the end of the probationary semester school standards are again not met, a second semester of probation will be allowed. If at the end of the second probationary semester school standards have not been met, the student's enrollment will be terminated for unsatisfactory progress with the Department of Veteran Affairs and the student referred to a Mitchell Community College counselor to set up conditional status guidelines. Counseling notes will be provided to the Asst. Financial Aid Officer. When the student has met the conditions as set forth by the counselor, the Asst. Financial Aid Officer will be notified. The recipient will be eligible to be certified with the Department of Veteran Affairs at the beginning of the next semester.
***Application Process:*** Students should apply for admission to Mitchell, contact high school and colleges attended to send official transcripts to Mitchell Community College, and provide the Admissions and Records Office with service schools or tests which may be evaluated for credit. Contact the Asst. Financial Aid Officer for an application for benefits and additional information needed for certification.
***Payment Guidelines:*** Mitchell Community college does not participate in the Advance Payment Program. Veteran students are required to pay all charges at the time of registration. Payment of educational benefits is made directly to the Veteran by the Department of Veteran Affairs for the period the Veteran is in attendance in an eligible program.

## Service Members Opportunity College

Having pledged to abide by the principles and criteria of Servicemembers Opportunity Colleges (SOC), Mitchell Community college has been designated as a Servicemembers Opportunity College.

## U.S. Army Reserve Officers Training Program

Mitchell Community College offers a cooperative program administered by Davidson College. Detailed information on this program is available from the Department of Military Science, Davidson College, Davidson, N.C.

## Financial Aid Information

The purpose of financial aid is to provide access to students who would be unable to attend college without assistance. Students who are enrolled or accepted for enrollment in an approved program leading to a certificate, diploma or degree may apply for financial assistance. Students must complete enrollment procedures and have on file in the Admissions and Records Office all appropriate official transcripts for high school and colleges attended. To apply for financial aid, a Free Application for Federal Student Aid (FAFSA) and a Mitchell Community College Institutional Financial Aid Application must be completed annually. For financial aid purposes at Mitchell Community College, the academic year is defined as two consecutive terms during the academic year, e.g. fall and spring semesters or spring and summer semesters. Students planning to attend school during the summer term who were also enrolled during the fall and spring terms should consider this in planning their budgets.

***Application Procedures:*** Obtain a Free Application for Federal Student Aid (FAFSA) and an Institutional Financial Aid Application from high school counselors or the Mitchell Community College Financial Aid Office. Complete and mail the FAFSA. Return the Institutional Financial Aid Application to the Financial Aid Office. Be sure to list Mitchell Community College (Title IV Code 002947), 500 West Broad Street, Statesville, North Carolina, in Section G of the FAFSA. Scholarship decisions will be made by the Mitchell Community College Scholarship Committee. Students who have completed both the financial aid and admissions application processes will receive an award letter. Contact the Financial Aid Office for more information.

***Types of Financial Aid Available:*** Federal Pell Grant, Federal Work-Study Program (FWS), Federal Supplemental Educational Opportunity Grant (FSEOG), State Student Incentive Grant (SSIG), Federal Stafford Loan (limited), Scholarships, Scholarship/Loans, and Veteran's Educational Aid (See Veteran's Coordinator). A student may receive several different awards. Grants are not repaid. Federal Work-Study awards must be earned as hourly wages for part-time work on campus. Students taking fewer than 12 credit hours, but at least one credit hour, may receive aid reduced in proportion to their academic course load. The interest rates and terms of the Federal Stafford Loans are disclosed by the lender. Mitchell Community College requires students who are interested in borrowing money to meet their college expenses to complete and return a budget to the Financial Aid Officer or his/her designee. A decision on whether or not to proceed with the loan process will be made during loan consultation. Students denied financial aid may request an explanation as to the basis for denial. Appeals due to academic ineligibility must be made in writing to the Financial Aid Officer.

***Distribution:*** Recipients of Federal Pell Grant, FSEOG, and scholarships may charge their tuition, fees, books, and supplies against their financial aid eligibility for the semester for which they are registering. If their financial aid is greater than the expenses charged, a check is issued to the student on dates specified in the award letter. Checks issued for the State Student Incentive Grant, Nurse Scholars Program, and Nurse Education Scholarship/Loan Program are available on the first day of class each semester. The Federal Stafford Loan checks are available for students no earlier than the first day of class each semester; however, a first year undergraduate student borrower who has not previously received a Federal Stafford Loan cannot receive his first check any earlier than 30 days after the first day of class.

***Transfer Student:*** If a student transfers to Mitchell from another school, a financial aid transcript must be submitted. In addition, Mitchell Community College must be listed on the FAFSA in Section G. A borrower from the Federal Stafford Loan program should check with the lender to be sure the loan can continue at the new school.

***Satisfactory Academic Progression Standard:*** Students must meet the U.S. Department of Education's statutory requirements of satisfactory progress in order to receive Title IV financial aid funds. To accurately measure the student's progress in his/her program, the policy must have

a **quantitative** measure of progress. To quantify satisfactory progress, students must complete courses in accordance with the chart below:

*8 credit hours per semester if registered as full-time (12+ credit hours);
*6 credit hours per semester if registered as three-quarter-time (9-11 credit hours);
*4 credit hours per semester if registered as half-time (6-8 credit hours); or
*all credit hours per semester if registered as less than half-time (below 6 credit hours)

The policy also includes a **qualitative** measure of progress which is evaluated by reviewing a student's grade point average (GPA). Since the minimum GPA required to receive the associate degree, diploma or certificate is 2.00, curriculum students failing to maintain the requirements as set forth in the Satisfactory Academic Progress Standard will be placed on academic probation for two consecutive semesters.

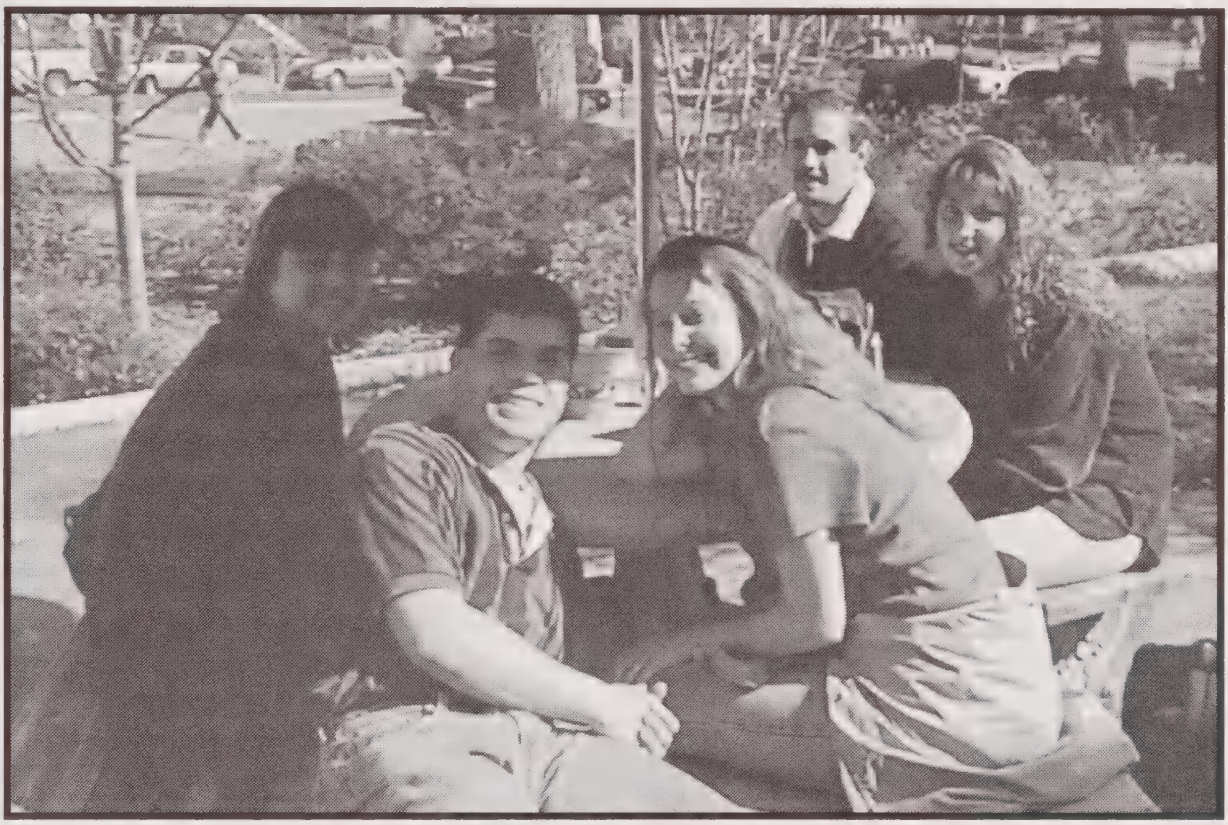
1. Attain a 2.00 GPA for the current academic term; and
2. Meet one of the following standards:

| | |
|---|---|
| 0-15 hours attempted | 1.25 Overall GPA |
| 16-23 hours attempted | 1.50 Overall GPA |
| 24-31 hours attempted | 1.75 Overall GPA |
| 32 + hours attempted | 2.00 Overall GPA |
| Graduation | 2.00 Overall GPA |

The records of Title IV financial aid recipients will be reviewed for satisfactory progress at the end of each term. The Financial Aid Office will notify students by letter of their probationary status. If satisfactory academic progress has not been made by the end of the probationary period, the student will be notified by letter of termination from financial aid. Financial aid assistance can be reinstated when the student meets the satisfactory academic progress guidelines at Mitchell Community College without receiving Title IV funds or by the appeal process. Appeals due to academic ineligibility must be made in writing no later than 15 days prior to registration and must be addressed to the Financial Aid Director or his/her designee. The Financial Aid Commitee will review the appeal request and notify the student of the committee's decision. The total hours attempted are utilized in the computation of the overall GPA. Grades of A, B, C, D, F, will be counted in the Financial Aid GPA calculation. Withdrawals carry no point value, but are computed as part of the Financial Aid GPA. Grades of Audit are not computed in the Financial Aid GPA. During any term in which students receive Title IV funds and then decide to audit a class, they may be liable for repayment of those funds.

***Maximum Time Frame:*** The student is allowed to receive federal financial aid for no more than 150 percent of the total hours required to complete a program. If a student changes majors the total hours continue to accrue until a program is completed.

# Student Life



# ■ Student Life

Mitchell Community College is committed to helping students develop to their fullest potential. With this goal in mind, the college strives to offer a comprehensive program in academics as well as social and cultural activities to build well-rounded persons. Students at Mitchell Community College are expected to conduct themselves in accordance with federal, state, and local statutes. Mitchell Community College will cooperate with the respective law enforcement agencies in their enforcement. The CODE OF STUDENT CONDUCT AND STUDENT APPEALS procedure is detailed in the Student Handbook, which is distributed to each student enrolled in a curriculum program or course.

## Student Responsibility

While it is the role of the college to provide counseling services and academic advising to students, the responsibility for planning and pursuing a program of study rests with the student. Selecting courses as well as a field of study should be carefully considered by the student with the assistance and support of counselors, academic advisors, administrators, faculty, and staff. The student is responsible for his or her persistence in pursuing a program of study to completion and for planning entry into a career or transfer to a senior institution.

## Student Records and Privacy Rights

Mitchell Community College must maintain accurate and confidential student records and must recognize the rights of students to have access to their educational and personal records in accordance with existing College policy and the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment) and its revisions effective 1976.

"Educational Records" include files, documents, and other materials which contain information directly related to students. The term "educational records" does not include the following:

- Records and documents of institutional personnel which are kept apart from educational records.
- Records on the student which are made or maintained by a physician, psychiatrist, psychologist, counselor, or other recognized professionals or paraprofessionals acting in their official capacity.
- Financial records on the parents of the student.
- Records of instructional, supervisory, and administrative personnel kept in their sole possession provided they are "not accessible or revealed to any other person except a substitute."

## Release of Student Educational Records

The following "Directory Information" may be made available to the public by the College without the student's written permission unless the student notifies the Office of Student Services in writing by the third week of the semester that such information concerning themselves is not to be made available.

- Student's name, address, telephone number, and social security number.
- Major field of study or program, club, and sports activities.
- Dates of attendance, degrees, diplomas, or awards received and the most recent previous educational institution.
- Place of birth, weight, and height.

Faculty and administrative officers of the College who demonstrate a legitimate educational need will be permitted to look at the official student file for a particular student.

Requests for confidential information shall not be honored without proper written consent. The written consent must specify the records or the specific data to be released and to whom it is to be released, and each request must be handled separately. Exceptions to this policy are:

- Requests for confidential information will be honored without prior consent of the student in connection with an emergency.
- Official requests in connection with the audit and evaluation of federal or state-supported programs or in connection with enforcement of federal or legal requirements which relate to such programs.
- An official order of a court of competent jurisdiction.
- Subpoena. (Students will be notified immediately by registered mail that their records are being subpoenaed.)
- Persons or organizations providing financial aid to the student or determining financial aid decisions.

## Control of Student Records

Transcripts and other information are released only with the written permission of the student. The only exception is that transcripts may be released by telephone request to another educational institution in which case the student receives written notification of such release. Students have the right to inspect their own records. Upon inspection, students are entitled to an explanation of any information contained in their record. Students have the right to copies of academic records of credits earned at Mitchell. Copies of transcripts and/or other information from institutions other than Mitchell must be requested from the originating institution. An official student file shall not be sent outside the Counseling Office, Records Office, Financial Aid Office, Veterans Affairs Office, Advisor's Office, or other custodial offices except in circumstances specifically authorized by the Dean of Student Services. The authorization for such special circumstances must be in writing. College officials responsible for the proper maintenance of education records include the Director of Admissions and Records and the Dean of Student Services. A student who believes that information contained in records is inaccurate or misleading may request that the record(s) be amended. The request must be in writing and directed to the Dean of Student Services.

## Disabled Students

Special parking facilities are available to students with disabilities who display parking placards from the North Carolina Department of Motor Vehicles. All permanent instructional facilities are accessible to students with disabilities except the second floor of the Wallace House. Special arrangements will be made for students with disabilities who desire to use these facilities. The Affirmative Action Officer is the person to contact for additional information concerning facilities. The office is in the Main Building.

## Equal Opportunity Policy Statement

Mitchell Community College shall continue to offer equal employment opportunities to its existing personnel and applicants for employment without regard to race, color, religion, sex, age, handicap, or national origin. The "open door" philosophy extends equal educational programs and instructional opportunities to the college's service area. Ongoing compliance with Federal and State Regulations shall be enforced with specific regard to:

(A) Age discrimination in the Employment Act of 1967 (as amended)
(B) Civil Rights Act of 1968;
(C) Civil Rights Acts of 1866 and 1871;
(D) Title VI of Civil Rights Act of 1964;
(E) Executive order No. 11246 (as amended);

(F) The Rehabilitation Act of 1973 (as amended: Sec. 503; Sec. 504);
(G) Title IX of Educational amendments of 1972;
(H) Equal Pay Act of 1963 (as amended);
(I) Title VII of Civil Rights Act of 1964 (as amended).
Persons with concerns related to areas falling under federal and state regulations should contact the Affirmative Action Officer, whose office is located in the Main Building, telephone number (704) 878-3202.

## Faculty Advisors

Upon completion of the admissions process, each student is assigned an advisor. In program areas these advisors are the primary instructors. In the areas A.A., A.F.A., A.S., advisors are randomly assigned. Recognizing that advisee-advisor relationships are as important as classroom instruction, advisors are available daily for assistance in needed areas. Specialized assistance is available through the Dean of Student Services.

## Job Placement Services

Mitchell Community College offers job placement service to students for part-time or full-time employment. The services of the Job Placement Office are available to current and graduating students, alumni, and prospective employers. Graduating students are given counsel and assistance in preparing for job placement. Information pertaining to job opportunities is provided, along with assistance in gathering and presenting information to prospective employers. Further information may be obtained from the Job Placement Office.

## Counseling

Counseling and guidance services are provided by the college to aid students in determining their vocational and educational programs, as well as assisting in resolving problems of a personal nature which might affect progress toward educational objectives. Professionally trained counselors are available.

## Intramurals

A number of intramural competitions are organized for students by the Student Government Association and Student Services personnel.

## Student Organizations

Mitchell Community College encourages students to be active in affairs of the institution. Through organizations, the student will find opportunities for entertainment, making new friends, leadership, and service to the college community. All student organizations must be approved by the administration and Student Government Association. Each organization must have a copy of its constitution or purpose which includes a statement of open membership without regard to race, color, religion, handicap, sex, creed, or national origin. The names of a faculty advisor must be on file with the Student Government Association.

## Student Government Association

The purpose of the Student Government Association is to help each student develop a personal sense of pride in and responsibility to the college, and to accept his democratic responsibilities as an American citizen. The Student Government Association acts as an intermediary between the student body and the administration of the college, serving as a student forum representing the student to the college faculty and administration. It also cooperates with the administration

in the coordination and supervision of student activities. All students who pay activity fees are members of the Student Government Association. The Constitution and the Student Code of Conduct are found in the Mitchell Community College *Student Handbook.*

## Student Grievance and Appeals

The student grievance and appeals procedure provides a system to channel student complaints and requests to appropriate college officials. The Student Rights, Responsibilities and Judicial Procedures policy as published in the *Student Handbook* establishes a student's right to inquire about and propose changes to the policies, regulations, and procedures affecting the welfare of students. Students should refer to the *Handbook* for policies governing academic honesty, sexual harassment, ADA grievance procedure, disciplinary procedure, and student rights and code of conduct. Students may also consult with the Dean of Student Services for assistance.

## The Learning Resources Center

The Learning Resources Center provides resources and services which support the instructional program at Mitchell. Services include reference assistance, book selection, and interlibrary loans. Audiovisual services include equipment for viewing and listening and production facilities. A coin-operated copier, microfilm reader/printers, and microfiche reader/printers are available for students. The "History Room" holds a combination of the history of Mitchell College, Iredell County, and North Carolina.

## Health and Wellness

Students at Mitchell Community College are encouraged to notify the college of medical conditions by a statement on the application form. There is also a space on the same form that requests students to provide the college with information about whom to contact in case of an emergency. The college has a communicable disease policy and a drug and alcohol policy in the *College Catalog* and *The Student Handbook.* Medical emergencies are managed by the Iredell County EMS and the Emergency Care Units of Columbia Davis and Iredell Memorial hospitals. First aid kits are available in all work areas for minor injuries. Health education courses and physical education activity courses are taught by curriculum faculty members in the Physical Education Division. In addition to formal coursework, the college maintains a busy schedule of health education offerings. There is an annual health fair that provides free health screenings for students. There are educational publications and posters in a variety of campus locations that relate to drug and alcohol issues as well as other health concerns. There are also educational workshops for students about specific diseases and conditions. Counselors in the Student Services area maintain lists of health professionals and assist students by making appropriate referrals.

## Appeal Process Specific To Semester Conversion

On the work day between late registration and the first day of class, a group of five faculty/staff members will be available at a designated hour to hear appeals relative to the transfer of academic credit from the quarter system to the semester system. The Dean of Student Services will be responsible for the physical arrangements, scheduling, and publicizing the process. The Dean of Curriculum Programs will appoint the members of the committee. The committee will function for the first four to six semesters and will deal only with transcript issues relative to semester conversion. All other issues will be handled through the established appeal process.

If a student wishes to appeal a ruling of this special committee, he/she will use the appeal process described in *The Student Handbook.*

## Student Rights

All rights and privileges guaranteed to every citizen by the Constitution of the United States and by the state of North Carolina shall not be denied any student. Students are free to pursue their educational goals. Appropriate opportunities for learning in the classroom and on the campus shall be provided for by the college. Student performance will be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students have the right to freedom of expression, inquiry, and assembly without restraint or censorship subject to reasonable and nondiscriminatory rules and regulations regarding time, place, and manner. Students have the right to inquire about and to propose improvements in policies, regulations, and procedures affecting the welfare of students through established student government procedures, campus committees, and college offices.

The Family Educational Rights and Privacy Act of 1974 provides safeguards regarding the confidentiality of and access to student records, and this Act will be adhered to by the college. Students and former students have the right to review their official records and to request a hearing if they challenge the contents of these records. No records shall be made available to unauthorized personnel or groups outside the college without the written consent of the student involved, except under legal compulsion. No disciplinary sanctions other than temporary removal from class or activity (only for duration of said activity) may be imposed upon any student without due process. Due process procedures are established to guarantee a student accused of a Student Code of Conduct violation the right of a hearing, a presentation of charges, evidence for charges, the right to present evidence, the right to have witnesses on one's behalf and to hear witnesses on behalf of the accuser(s), the right to counsel, and the right of appeal.

## Student Code of Conduct

The college reserves the right to maintain a safe and orderly educational environment for students and staff. When, therefore, in the judgment of college officials, a student's conduct disrupts or threatens to disrupt the college community, appropriate disciplinary action will be taken to restore and protect the sanctity of the community. Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and morality. The purpose of this code is not to restrict student rights but to protect the rights of individuals in their academic pursuits. The following regulations set forth rules of conduct which prohibit certain types of student behavior. Violation of one or more of the following regulations may result in one of the sanctions described in *The Student Handbook.*

A. Academic Dishonesty - taking or acquiring possession of any academic material (test information, research papers, notes, etc.) from a member of the college staff or student body without permission; receiving or giving help during tests; submitting papers or reports (that are supposed to be original work) that are not entirely the student's own; not giving credit for others' work (plagiarism).
B. Theft of, misuse of, or damage to college property, or theft of or damage to property of a member of the college community or a campus visitor on college premises or at college functions; unauthorized entry upon the property of the college or into a college facility or a portion thereof which has been restricted in use and thereby placed off limits; unauthorized presence in a college facility after closing hours.
C. Possession of or use of alcoholic beverage or being in a state of intoxication on the college campus or ofcollege-sponsored or supervised functions off campus or in college-owned vehicles. Possession, use or distribution of any illegal drugs. Any influence which

may be attributed to the use of drugs or of alcoholic beverages shall not in any way limit the responsibility of the individual for the consequences of his/her actions. (Refer to the Drug and Alcohol Policy)

D. Lewd or indecent conduct, including public physical or verbal action or distribution of obscene or libelous written material.

E. Mental or physical abuse of any person on college premises or at college-sponsored or college-supervised functions, including verbal or physical actions which threaten or endanger the health or safety of any such persons or which promote hatred or racial prejudice.

F. Any act, comment, or behavior which is of a sexually suggestive or harassing nature and which in any way interferes with a student's or any employee's performance or creates an intimidating, hostile or offensive environment.

G. Intentional obstruction or disruption of teaching, research, administration or disciplinary proceedings, or other college activities, including public service functions and other duly authorized activities on college premises.

H. Occupation or seizure of any manner of college property, a college facility or any portion thereof for a purpose inconsistent with prescribed, customary, or authorized use.

I. Participating in or conducting an assembly, demonstration or gathering in a manner which threatens or causes injury to person or property; which interferes with free access to, ingress or egress of college facilities; which is harmful, obstructive or disruptive to the educational process of institutional functions of the college; remaining at the scene of such an assembly after being asked to leave by a representative of the college staff.

J. Possession or use of a firearm, incendiary device or explosive, except in connection with a college-approved activity. This also includes unauthorized use of any instrument designed to inflict serious bodily injury to any person.

K. Setting off a fire alarm or using or tampering with any fire safety equipment, except with reasonable belief in the need for such alarm or equipment.

L. Gambling.

M. Smoking and/or using other forms of tobacco products in classrooms, shops, and labs or other unauthorized areas.

N. Violations of college regulations regarding the operation and parking of motor vehicles.

O. Forgery, alteration, or misuse of college documents, records or instruments of identification with intent to deceive.

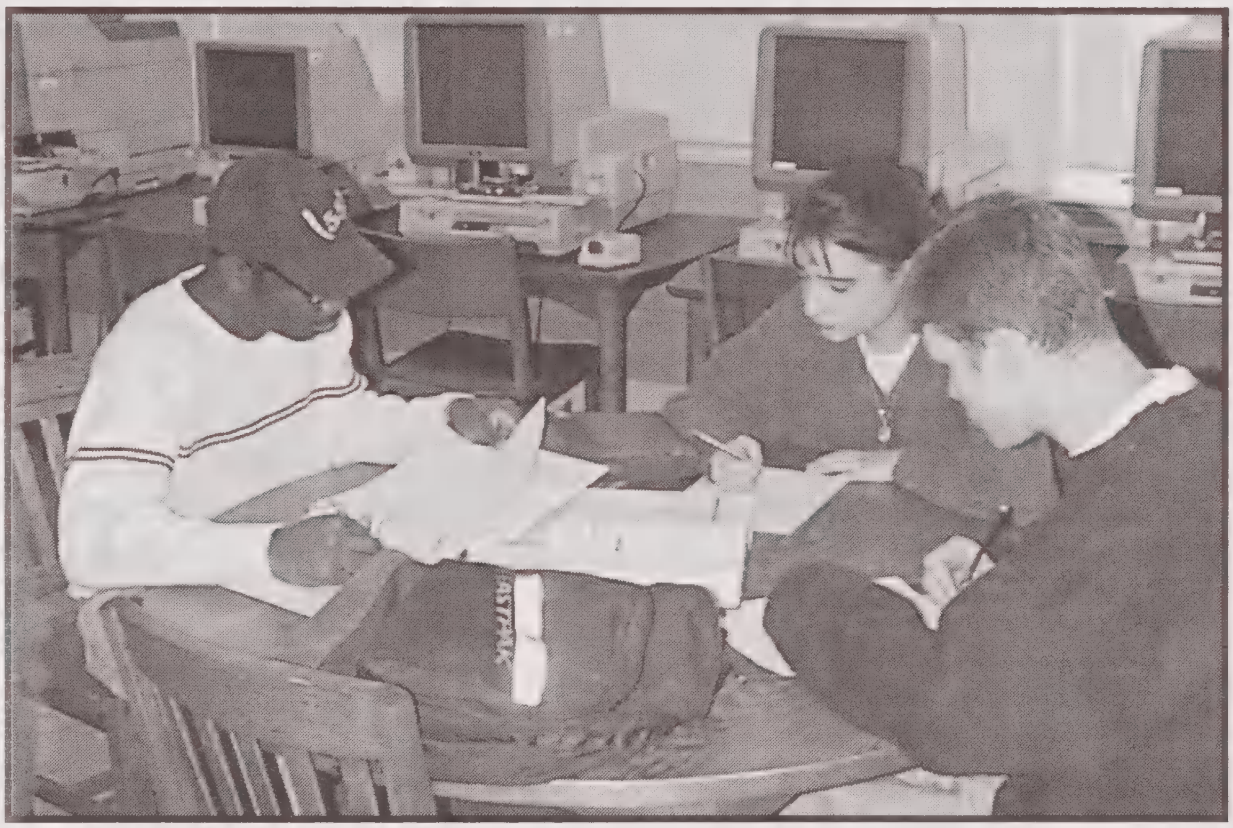
P. Failure to comply with instructions of college officials acting in performance of their duties.

Q. Violation of the terms of disciplinary probation or any college regulation during the period of probation.

R. Fiscal irresponsibility such as failure to pay college-levied fines, failure to repay college-funded loans or the passing of worthless checks to college officials.

S. Violation of a local, state or federal criminal law on college premises adversely affecting the college community's pursuit of its proper educational purposes.

# Academic Policies



# ■ Academic Policies

## Semester System

Mitchell operates on a three semester system. The fall, spring are each sixteen weeks in length and the summer is ten weeks. The college is in session five days a week. Semester hours credit is awarded as follows: Credit of one semester hour is awarded for each 16 hours of class work; credit of one semester hour is awarded for each 32 or 48 hours of laboratory work; and credit of one semester hour is awarded for each 48 hours of clinical practice. Credit of one semester hour is also awarded for 160 hours of work experience such as cooperative education, practicums, and internships.

## Registration

All students are required to register at the beginning of each semester of attendance. Students may not attend courses for which they are not officially enrolled. Formal completed enrollment is based on the official class rosters generated by the Admissions and Records Office as soon as possible after registration.

## Change of Schedule

Changes in a class schedule after registration must be made in the office of the Director of Admissions and Records. The last day that courses may be added each semester is stated on the college calendar. Any student wishing to drop a course must complete the drop form which is processed through the office of the Director of Admissions and Records and the Business Office.

## Student Course Load

Students must register for 12 semester hours to be considered full-time, and the course load must not drop below these hours per semester. These requirements are minimal to receive full VA benefits. The normal course load varies with each program. For A.A., A.S., or A.F.A. the course load is 16 credit hours per semester, while the normal course load for any A.A.S. technical program is 18 credit hours per semester. Students may not register for more than 21 credit hours without approval of the Dean of Student Services. Approval of an overload will be determined on the basis of past academic achievement of the student. Students who are employed while attending college should consult with their faculty advisor to determine an appropriate course load.

## Classification

Students are classified as freshmen from initial enrollment until 30 semester hours credit have been earned, at which time they are classified as sophomores. For student activities purposes, students must have been enrolled for a minimum of two semesters before they are classified as sophomores.

## Attendance Policy

Regular class attendance is considered to be a vital ingredient in scholastic achievement and is one of the many responsibilities of the college student. As a result, the student is expected to be in attendance for each class meeting unless prohibited by uncontrollable events. No absence exempts the student from completing the work assigned during the absence. The student will assume the responsibility of determining what work was missed. Students anticipating an absence should contact their instructors in advance to make necessary arrangements. The instructor is responsible for informing students in writing of the class attendance policy at the beginning of each semester.

The instructor will inform the Admissions and Records Office when a student fails to comply with the attendance policy of the class or fails to attend for two consecutive weeks. The instructor will assign a grade of "F" at the end of the semester to any student who has not complied with the class attendance policy or has failed to attend for two consecutive weeks. Students will receive a "W" instead of an "F" if they complete the proper withdrawal form in Student Services.

## Withdrawal Policy

In order to officially drop a single course, a student must submit a completed drop form, signed by the instructor and the advisor, to Student Services. The last day to drop a class is at the 60% point of the semester. The exact date for each academic term is published in the *Student Handbook.* In order to officially withdraw from school, a student must submit a completed withdrawal form to the Admissions and Records Office. A student may drop a course or withdraw from all courses up to and including the published date to drop or withdraw with a grade of "W". A student who fails to drop or withdraw officially will receive a grade of "F" for any course not completed satisfactorily. NOTE: Failure to attend class or to notify the instructor does not constitute an official drop or withdrawal.

## Grading System and Grade Point Average

The 4.00 grade point system is used to calculate student grade point averages. The letter grades used are:

| | |
|---|---|
| A | Excellent - 4 grade points per semester hour |
| B | Good - 3 grade points per semester hour |
| C | Average - 2 grade points per semester hour |
| D | Passing - 1 grade point per semester hour |
| F | Failed - No grade points per semester hour |
| • | Institutional Credit Only |
| CE | Credit by Examination |
| I | Incomplete - Work must be completed satisfactorily within the next semester, except that, where circumstances warrant, the instructor may approve an extension of time up to one year from the closing date of the course. If the "I" has not been removed by the designated date, a grade of "F" will be recorded. |
| NC | No Credit |
| W | Withdrawal - Denotes official withdrawal from school. |
| AU | Audit |
| TR | Transfer Work |
| NS | No Show - Recorded for students who register for classes, but do not attend at least one class session prior to the 10% point. |

The grade point average is calculated by dividing the total number of quality points earned by the total number of semester hours attempted, including both courses passed and failed, unless the courses have been repeated. When a course is repeated, the highest grade earned will be included in calculating the GPA. All courses attempted will be shown on the official transcript. A "C" average is required for graduation. On the 4.00 grade point system, a "C" average is a 2.00 grade point average. A letter grade followed by a [•] is given for developmental courses. Institutional credit only is awarded. Hours are not counted toward graduation and are not figured in the student's grade point average.

## Course Examinations

A final exam is required in every course. The examination schedule is published by the Director of Admissions and Records's office and all exams are required to be held during the

published hours.

## Grade Reports

Records of progress are kept by this institution on Veteran and non-Veteran students alike, and progress records are furnished to all students at the end of each scheduled school semester.

## Dean's List

The Dean's List is published at the end of each semester. It is published as follows:
***Full-Time*** - Any student enrolled for at least twelve semester hours and earning a grade point average of 3.5 or better with no grade below "C" will be on the Full-Time Dean's List for that semester.
***Part-Time*** - Any student enrolled for at least six semester hours, but less than twelve, and earning a grade point average of 3.5 or better with no grade below "C" will be on the Part-Time Dean's List for that semester.

## Graduation Honors

***High Honors*** - A student who has a cumulative grade point average of 3.75 or greater with no grade below a "C" will receive High Honors at graduation.
***Honors*** - A student who has a cumulative grade point average of 3.50 to 3.74 with no grade below a "C" will receive Honors at graduation.
At least fifty percent of the curriculum requirements must be completed at Mitchell Community College to be eligible for honors at graduation. Certificate programs do not qualify for honors.

## Graduation Marshals

The graduation marshals are those freshmen enrolled in a program of study who have the highest grade point averages and have earned a minimum of 12 semester hours. They will assist in graduation exercises and other college events.

## Satisfactory Academic Progress

Mitchell Community College is committed to the success of students. Part of that commitment to success is a process that gives students an early warning of the need to achieve a GPA of 2.00 before graduation. This warning also provides the mechanism to refer students who are experiencing academic difficulty to academic advisors for assistance or referral to the full range of services include free tutoring, remedial and supplemental self-paced computer modules, counseling, financial aid, and placement in part-time employment.

### Academic Probation

Since the minimum grade point average (GPA) required to receive the associate degree, diploma, or a certificate is 2.00, curriculum students who fail to meet one of the following retention standards during any semester will be placed on academic probation for the following academic term.

1. Attain a 2.00 GPA for the current academic term, or
2. Meet one of the following retention standards

| | | | |
|---|---|---|---|
| Up to 15 hours attempted | 1.25 | Overall | GPA |
| 16-23 hours attempted | 1.50 | " | " |
| 24-31 hours attempted | 1.75 | " | " |
| 32 and above | 2.00 | " | " |
| Graduation | 2.00 | " | " |

Students failing to maintain the average shown will be placed on academic probation and will remain on probation until the student's cumulative GPA reaches the standards of progress listed. The Director of Admissions and Records will notify students by letter of probationary status and will advise those students to make an appointment with their academic advisor and/or a counselor. Students receiving financial aid must maintain satisfactory academic progress to continue receiving aid. The total hours attempted are utilized in the computation of the overall cumulative grade point average. This includes both courses passed and failed, unless the course has been repeated. When a course is repeated, the highest grade earned will be included in the calculation of the grade point average. For further information, see the Financial Aid Section of the *Catalog*. Students receiving Veteran's educational benefits must meet the requirements for academic progress as set forth above. If Veterans do not meet this requirement, they will be placed on academic probation. For detailed information see the Veterans Section of the *Catalog*. Students enrolled in the Nursing Program should see the "Nursing Policy and Procedure Manual," PROGRESSION POLICY.

## Academic Suspension

A student who fails to maintain the minimum grade point average outlined below will be subject to a period of academic suspension for one academic term. Students may re-enroll after one semester's suspension. They must complete the regular re-admission form and are encouraged to schedule a pre-enrollment appointment with a counselor.

| Credit Hours Attempted | Minimum Grade Points |
|---|---|
| 10-20 | 0.50 |
| 21-31 | 0.75 |
| 32 and above | 1.00 |

## Academic Re-Instatement

Suspended students seeking immediate readmission must petition the Dean of Student Services prior to the beginning of the semester. This appeal will be directed to a committee composed of a counselor, a faculty member, and the Dean of Curriculum Programs.

## Course Requirements

Mitchell Community College has established prerequisite and corequisite requirements for selected courses. The prerequisite and corequisite requirements are required of all students, including special students, who enroll in the courses. The purpose of the prerequisite and corequisite preparation is to insure that students have adequate academic experiential preparation to successfully complete the course.

## Student Retention

Mitchell Community College makes every effort to assist enrolled students in achieving their academic goals. Academic evaluation and appropriate course placement is the basis of the retention efforts. Additional retention efforts include a comprehensive program of student financial aid, an academic advising system that assigns any program student to an advisor, the availability of professional counselors, a full open lab that provides both tutoring and individualized self-instructional modules, and a student success course emphasizing study skills. This course is required of all developmental students. These efforts have resulted in a semester-to-semester student retention rate that is among the highest in the North Carolina Community College System.

## Credit By Examination

Students whose special knowledge/skills qualify them to accelerate in their studies and who are currently enrolled at Mitchell Community College may receive credit by examination. Not all courses offered at MCC allow credit by examination. Students may not challenge a course in which they are currently enrolled or in which they have received a punitive grade. A course may be challenged through credit by examination only once. A student who successfully completes a credit by examination will be awarded a grade of "CE" and credit hours for the course. Quality points will not be awarded; therefore, the grade is not included in the calculation of grade point average. A grade of "C" or better must be earned on the exam to receive credit. If a grade less than a "C" is earned, the student will receive a grade of "NC" (no credit awarded). Credit by exam hours cannot be used in calculating enrollment status for payment of Financial Aid or Veteran Educational Benefits.

Students requesting this type of credit should use the following procedure:

- Obtain a credit by examination approval form from the Office of the Dean of Curriculum Programs. The form is then taken to the appropriate instructor and the exam is scheduled.
- The student will take the signed approval form to the Admissions and Records Office to register and pay fees.
- Upon presentation of tuition receipt to the instructor, the exam is taken as scheduled and the instructor returns the graded exam and form to the Dean of Curriculum Programs.
- The Dean of Curriculum Programs will notify the Admissions Office upon successful completion of the examination.

## Advanced Placement For High School Courses

Advanced placement credit based on high school achievement may be allowed to students enrolling in specified programs. Details concerning specific requirements are available from counselors at the high schools and at Mitchell Community College. Students enrolled in the Nursing Programs please see the Nursing Policy and Procedure Manual.

## Developmental Education Program

Founded on the "open door" admissions philosophy of the community college, the Developmental Education Program (DEP) is dedicated to providing quality instruction, advising, and academic support services which promote the skills development of under-prepared students so that they can successfully achieve their academic, personal, and professional goals. In order to address the varying needs of students, the program utilizes placement testing, advising, skills development courses, the College Student Success course, and the MIND Center of Learning and Teaching. The DEP actively promotes the cognitive and affective growth of all developmental students, at all levels of the learning continuum, thereby ensuring educational opportunity for each post-secondary learner. In addition, the DEP supports retention of students and maintains high academic standards by enabling learners to acquire competencies needed for success in mainstream college courses.

## The Career Center

The following services/activities are provided by Mitchell Community College's Career Center:

*Job Openings:*

An up-to-date list of full- and part-time job vacancies is maintained.

*Career Assessment:*

Assistance is provided in helping individuals identify jobs/careers that match their interests, skills, abilities and personalities.

*Job Readiness Training:*

Students are taught how to develop a job search plan, complete resumes and conduct successful job interviews.

*Career Library:*

The following information is available: job descriptions, salaries, education/training requirements, and job outlook.

*Computerized Career Decision-Making Information:*

With the aid of the computer, individuals are guided through a series of activities that facilitate career decision-making.

*College Catalogs*

Catalogs from all North Carolina two-year and four-year colleges and universities are housed in the Career Center.

For assistance/information, call (704) 878-3242.

## The MIND Center for Learning and Teaching

The MIND Center for Learning and Teaching is committed to providing quality academic support services which enable students to:

- develop, enhance, and maximize their learning skills:
- improve their understanding, achievement, and enjoyment of course work;
- become proficient in using computer software and equipment; and
- employ successful learning strategies for their personal, academic, and professional pursuits.

Located in rooms 209 and 211 of the Vocational Building, the MIND Center serves students' academic needs with the Tutoring Center and the Computer Center. The Tutoring Center offers free peer tutoring in any course by appointment or on a drop-in basis with additional academic support for writing, mathematics, and other courses with learning skills videos, textbooks, audiotapes, and handouts. The Computer Center offers students, faculty, and staff access to computer software and equipment for a variety of purposes from tutorials in grammar, writing, reading, and keyboarding skills to data processing, accounting, and word processing. The MIND Center is staffed by trained personnel who seek to provide a successful and enjoyable working environment for students, faculty, and staff, as well as members of the community. Currently, the MIND Center staff includes a coordinator, program assistants, tutors, and student assistants. General operating hours for the center are 8:00 a.m. to 8:00 p.m. Monday through Thursday and 8:00 a.m. to 3:00 p.m. on Friday. During summer semester and breaks, operating hours may change but will be posted.

## Charlotte Area Educational Consortium

Mitchell Community College is a member of the Charlotte Area Educational Consortium (CAEC), which exists for the purpose of fostering attainment of the highest level of collegiate education for students in the Charlotte metropolitan area. CAEC has as a portion of its purpose:

- to afford students broader educational experiences both curricular and extracurricular.
- to encourage multi-instructional use of faculty, equipment, and facilities where feasible.
- to act as a forum for sharing information and important events.

Of special interest to Mitchell Community College students is the Consortium Student Exchange program. This program allows, under specific guidelines, for students of member institutions to take courses at other member institutions when such courses are not available at the student's home institution. This means full-time Mitchell students may enroll in approved courses for no additional tuition charges at any of the participating institutions. The Director

of Admissions and Records at Mitchell will provide specific guidelines and necessary forms for this program.

*Participating Institutions are:*

Barber-Scotia College
Belmont Abbey College
Catawba College
Central Piedmont Community College
Davidson College
Gaston College
Johnson C. Smith University
Lenoir-Rhyne College
Livingston College
Mitchell Community College
Pfeiffer College
Queens College
Rowan-Cabarrus Community College
Stanly Community College
University of North Carolina at Charlotte
University of South Carolina at Lancaster
Wingate College
Winthrop University
York Technical College

## Telecourses

Telecourses provide Mitchell Community College students with the opportunity to begin or continue their education by using study materials and watching television at home. As a complete learning system designed for home or off-campus use, the telecourse contains the same basic content found in the on-campus course. The televised lessons often allow demonstrations unavailable in a traditional classroom setting. In addition to the televised lessons, the telecourse requires an on-campus orientation, a textbook, a study guide, tests, written assignments, on-campus review sessions, and student-instructor communications.

Veteran students who wish to enroll in telecourses at Mitchell Community College for certification of educational benefits to the Department of Veteran Affairs must meet the following guidelines:

- Matriculating students must complete 6 semester hours of graduation requirements at Mitchell Community College in the current major and have an overall GPA of 2.00 or higher in the current major prior to enrolling in a telecourse.

- The student must attend the review sessions and required orientation session and communicate with the instructor at least once a week. (NOTE: the telecourse instructor's signature will be required on the Veteran's attendance sheets to be turned in to the Veteran's Coordinator approximately every three weeks.)

## Auditing Classes

Classes may be audited with permission of the instructor if space is available; however, no class may be audited more than once. The audit may occur either before or after taking the course for credit. Priority will be given to regular credit students. Any class with more than fifty percent audits may not be taught. No one will be allowed to audit an independent study or independent studio course.

Participation in class discussion and examinations is at the option of the instructor. No credit by examination can be allowed for courses that have been audited. A grade of "AU" will be recorded with no credit hours or quality points awarded. Registration or changes in registration for audits must be completed during the regular registration or change periods. Regular tuition and fees will be charged.

## Course Repeats

Any student will be allowed to repeat courses if he or she does not displace a student who has not previously taken the course. When a course is repeated, the highest grade is recorded as the final grade for the course and will be the only grade used in calculating grade point averages or hours towards graduation; however, all courses attempted will be shown on the official transcript. In those cases where a course in which the student received an "F" is not offered during the remainder of that student's residence, an equivalent course may be substituted upon recommendation of the Dean of Curriculum Programs for purposes of meeting program requirements. Exceptions must be approved by the Vice-President for Instruction. Even though Mitchell Community College will count only the highest grade when calculating grade point averages, the sixteen North Carolina university institutions may use both grades to arrive at a grade point average for transfer.

## Course Substitutions

No course substitutions may be made and no graduation requirements may be waived without recommendation from the program director and the Dean for Curriculum Programs.

## Transcripts

An official transcript of work at Mitchell Community College will be sent to the appropriate institution upon written request by the student. No transcript will be released until all financial obligations to the College have been met.

## Graduation Requirements

The following requirements apply to programs; however, some divisions may have additional requirements applicable only to that division.

- Students in the programs awarding diplomas are required to reach a reading proficiency level. Students in programs awarding the Associate in Arts, Associate in Fine Arts, Associate in Science, or Associate in Applied Science degrees are required to make satisfactory scores on the reading placement test, or successfully complete reading requirements.
- Students may graduate under the catalog upon which they enter or any subsequent catalog in effect while they remain in continuous enrollment. Upon changing from one program to another within the college, students must graduate under the catalog in effect at the time they change or any subsequent catalog while they remain in continuous enrollment. Continuous enrollment excludes summer semester. Due to special circumstances associated with the change to the semester system and the new academic programs of study during the academic years 1997-98 and 1998-99, graduation requirements will be determined on an individual basis.
- Along with the appropriate number of hours earned and the completion of all required courses for their specific program, students must have a 2.0 grade point average in order to graduate and receive a degree, diploma, or certificate.
- Application for graduation and payment of graduation fees must be made during the registration period for the student's last semester.
- Presence at graduation is a requirement. When attendance is impossible, the student may petition, in writing, the Dean of Student Services for permission to graduate in absentia.
- A minimum of 20 semester hours credit in the student's program of study must be earned at Mitchell Community College in order to be eligible for graduation.
- A maximum of 7 semester hours credit may be earned at another institution and accepted for graduation purposes after a student transfers from Mitchell Community.

- To be eligible for graduation, the student must fulfill all financial obligations to the College.

## Academic Honesty

Mitchell Community College is committed to academic excellence which strengthens pride, integrity, and self-realization. Such acts as plagiarism (presenting the words, graphics, structure, or ideas of others as if they were one's own without proper acknowledgement or documentation) and taking answers from another student's test paper are subject to disciplinary action. Any form of academic dishonesty is unacceptable and if detected could result in disciplinary action.

## Cooperative Education Program

Cooperative Education is an academic program which integrates classroom study with practical experience in business, industry, public, and community agency work situations. The work experience constitutes a regular and essential element in the educational process by allowing students to apply their studies in a real work environment. The Co-op work experience occurs concurrently with academic studies, may be paid or unpaid, and awards academic credit. A maximum of three credit hours may be earned through the Co-op program. One hour of credit equals 160 hours of work experience per semester. Credit is awarded based on evaluations and assignments from the student's supervisor at work, faculty advisor, and the Co-op Director. For many MCC students, Co-op provides an extra means of financial support. All curriculums except Nursing, Cosmetology, and Human Services may Co-op.

### Eligibility:

Students are accepted from various programs of study at MCC provided they meet the following general criteria:

- Be enrolled in an approved MCC Co-op curriculum or degree;
- Have a minimum 2.0 GPA;
- Be recommended by the Co-op Faculty Coordinator;
- Be approved by the Cooperative Education Office;
- Have completed nine semester hours of college-level work;
- Have completed required developmental course work.

### Currently Employed Students:

Students may qualify to receive academic credit if they are already employed and they meet the following general criteria:

- Students must be acquiring significant new skills or knowledge related to their academic field of study, and/or
- Students must be developing recently-learned skills or applying recently-learned knowledge related to their academic fields of study, and/or
- Students must receive increased levels of responsibility related to their academic field of study, and/or
- Employers must agree to assist with evaluations of their individual student's progress.

For more information on how to participate as a Co-op student or a Co-op employer, contact the Cooperative Education Office, Montgomery Student Center, (704) 878-4262/3.

## North Carolina Information Highway

Mitchell Community College's administration, staff, and faculty strive to maintain the same quality and content in its courses regardless of how or where they are taught; therefore, courses taught over the Information Highway (Interactive Classroom) will function according to the following guidelines:

Transmitting Institution (Home Institution)

- The admission requirements will be the same as for traditional students at the home institution.
- Mitchell Community College's academic policies and Code of Conduct will apply.
- MCC's guidelines for tuition and materials fees will apply with charges made payable to the home school.
- Students at the visiting institution will receive the course syllabus and will be aware of how to contact the instructor and/or another full-time instructor at Mitchell Community College who is responsible for the specific course.
- The instructor will be located at the transmitting institution and will have interactive capabilities — both verbal and visual — with students at the receiving institution.
- If college calendars for the home and visiting institutions do not completely match and result in a missed class at the visiting school, the home school will videotape the lesson and send it to the visiting school.
- Materials will be faxed when necessary and feasible.
- Laboratory sessions, when necessary, will be arranged by the home institution and made available at the visiting institution.

Receiving Institution (Visiting Institution)

- A contact person and/or a class sponsor will be furnished to assist with testing and other matters such as registration.
- Counseling and other student development services will be made available to the students by the visiting school.
- Library resources appropriate for the course being taught will be available at the visiting school.
- Advertisement and recruiting for the course will be done by personnel at the visiting school.

# Curriculum Programs

MITCHELL COMMUNITY COLLEGE

# PROGRAMS OF STUDY

## 1998-1999

| Program Title | Program Code |
|---|---|
| **Associate in Arts** (A.A.) | A10100 |
| **Associate in Fine Arts** (A.F.A.) | A10200 |
| **Associate in Science** (A.S.) | A10400 |
| **Associate in Applied Science** (A.A.S.) | |
| Accounting | A25100 |
| Associate Degree Nursing | A45120 |
| Business Administration | A25120 |
| Business Administration - Operations Management Tech. (Concentration) | A2512G |
| Criminal Justice Technology | A55180 |
| Early Childhood Associate | A55220 |
| Electrical/Electronics Technology | A35220 |
| Electronics Engineering Technology | A40200 |
| Human Services Technology | A45380 |
| Industrial Maintenance Technology | A50240 |
| Information Systems | A25260 |
| Information Systems - Programming (Concentration) | A2526E |
| Machining Technology | A50300 |
| Manufacturing Engineering Technology | A40300 |
| Mechanical Drafting Technology | A50340 |
| Medical Assisting | A45400 |
| Office Systems Technology | A25360 |
| **Diploma** | |
| Air Conditioning, Heating & Refrigeration Technology | D35100 |
| Cosmetology | D55140 |
| General Occupational Technology | D55280 |
| Welding Technology | D50420 |
| **Certificate** | |
| Basic Law Enforcement Training | C55120 |
| Nursing Assistant | C45480 |
| Phlebotomy | C45600 |

Additional programs available through collaboration with neighboring Community Colleges:

| | |
|---|---|
| **Collaborative Programs (A.A.S.)** | |
| Dental Hygiene | A45260 |
| Electric Lineman Technology | A35210 |
| Healthcare Management Technology | A25200 |
| Motorsports Management Technology | A60270 |
| Speech-Language Pathology Assistant | A45730 |

# Pre-Major Transfer Programs

AA

## Associate in Arts (A10100)

| | |
|---|---|
| Pre-Art Education Moore | A1010A |
| Pre-Business Administration Lucado/ Whiteheart | A1010B |
| Pre-Business Education and Marketing Education Brown | A1010C |
| Pre-Criminal Justice • Cooper | A1010D |
| Pre-Elementary, Middle, Special Education Staton | A1010 P ← |
| Pre-English Heymann, ~~Staton~~, Bathanti | A1010E |
| Pre-Health Education Myers | A1010G |
| Pre-History moose/Herman | A1010H |
| Pre-Nursing Kaye Miller | A1010I |
| Pre-Physical Education Myers | A1010J |
| Pre-Political Science Moose | A1010K |
| Pre-Psychology Tate | A1010L |
| Pre-Social Science Secondary Education Herman | A1010M |
| Pre-Sociology Beulin | A1010N |

## Associate in Science (A10400)

| | |
|---|---|
| Pre-Biology and Biology Education* Turk | A1040A |
| Pre-Chemistry and Chemistry Education* Ide | A1040B |
| Pre-Engineering* Klaene | A1040D |
| Pre- Mathematics Gabbs/ McDaniel / Bayles | A1040E |

***In this major, one or more courses may not be offered on this campus; however, they are available through the Charlotte Area Educational Consortium Colleges and Universities at Community College tuition rates.***

# Associate in Arts (A.A.) [A10100]
## Degree Requirements

**General Education Core** **44 SHC***

**English/Communications (6 SHC)**

*Required:*

| | | | |
|---|---|---|---|
| ENG | 111 | Expository Writing | 3 |

*Select one:*

| | | | |
|---|---|---|---|
| ENG | 112 | Argument Based Research | 3 |
| ENG | 113 | Literature Based Research | 3 |
| ENG | 114 | Professional Research & Reporting | 3 |

**Humanities/Fine Arts (12 SHC)**

A literature course and COM 120 are required.
Select two additional courses from two additional discipline areas

| | | | |
|---|---|---|---|
| ART | 111 | Art Appreciation | 3 |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| COM | 120 | Interpersonal Communication | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 233 | Major American Writers | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| FRE | 211 | Intermediate French I | 3 |
| FRE | 212 | Intermediate French II | 3 |
| MUS | 110 | Music Appreciation | 3 |
| PHI | 215 | Philosophical Issues | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Intro. to Old Testament | 3 |
| REL | 212 | Intro. to New Testament | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |

**Social/Behavioral Sciences (12 SHC)**

Four courses from three discipline areas are required.
At least one course must be a history course.

| | | | |
|---|---|---|---|
| ANT | 210 | General Anthropology | 3 |
| ECO | 251 | Prin. of Microeconomics | 3 |
| ECO | 252 | Prin. of Macroeconomics | 3 |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |
| POL | 120 | American Government | 3 |
| POL | 210 | Comparitive Government | 3 |
| POL | 220 | International Relations | 3 |
| PSY | 150 | General Psychology | 3 |
| PSY | 241 | Developmental Psychology | 3 |
| PSY | 281 | Abnormal Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |

**Natural Sciences/Mathematics (14 SHC)**

*Natural Sciences (8 SHC):* Two courses, including accompanying laboratory work, from the biological and physical science disciplines are required.

| | | | |
|---|---|---|---|
| BIO | 111 | General Biology I | 4 |
| BIO | 112 | General Biology II | 4 |
| CHM | 151 | General Chemistry I | 4 |
| CHM | 152 | General Chemistry II | 4 |
| PHY | 151 | College Physics I | 4 |
| PHY | 152 | College Physics II | 4 |
| PHY | 251 | General Physics I | 4 |
| PHY | 252 | General Physics II | 4 |

*Mathematics* (6 SHC): At least one course in introductory mathematics is required; the other course may be selected from among other quantitative subjects, such as computer science and statistics.

*Select at least one:*

| | | | |
|---|---|---|---|
| MAT | 140 | Survey of Mathematics | 3 |
| MAT | 161 | College Algebra | 3 |
| MAT | 175 | Precalculus | 4 |

*Second Math:*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CIS | 110 | Introduction to Computers | 3 | MAT | 175 | Precalculus | 4 |
| CIS | 115 | Intro to Prog & Logic | 3 | MAT | 263 | Brief Calculus | 3 |
| MAT | 151 | Statistics I | 3 | MAT | 271 | Calculus I | 4 |
| MAT | 161 | College Algebra | 3 | MAT | 272 | Calculus II | 4 |
| MAT | 162 | College Trigonometry | 3 | MAT | 273 | Calculus III | 4 |

**Other Required Hours** **20-21 SHC**

Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience (Co-Op) may be included up to 1 SHC for career exploration.

*Required:* **(3-4 SHC)**

| | | | |
|---|---|---|---|
| ACA | 111 | College Student Success | 1 |

Two Physical Education Courses to be selected from the following: 2-3

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PED | 110 | Fit & Well for Life | 2 | PED | 132 | Racquetball - Beginning | 1 |
| PED | 111 | Physical Fitness I | 1 | PED | 133 | Racquetball - Intermediate | 1 |
| PED | 113 | Aerobics I | 1 | PED | 137 | Badminton | 1 |
| PED | 114 | Aerobics II | 1 | PED | 139 | Bowling - Beginning | 1 |
| PED | 117 | Weight Training I | 1 | PED | 142 | Lifetime Sports | 1 |
| PED | 121 | Walk, Jog, Run | 1 | PED | 143 | Volleyball - Beginning | 1 |
| PED | 128 | Golf - Beginning | 1 | PED | 144 | Volleyball - Intermediate | 1 |
| PED | 129 | Golf - Intermediate | 1 | PED | 145 | Basketball - Beginning | 1 |
| PED | 130 | Tennis - Beginning | 1 | PED | 146 | Basketball - Intermediate | 1 |
| PED | 131 | Tennis - Intermediate | | | | | |

Other Required Hours **(17-18 SHC)**

to be chosen from any of the above lists or from the following:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ACC | 120 | Prin of Accounting I | 4 | CJC | 111 | Intro to Criminal Justice | 3 |
| ACC | 121 | Prin of Accounting II | 4 | CJC | 121 | Law Enforcement Operation | 3 |
| ART | 121 | Design I | 3 | CJC | 141 | Corrections | 3 |
| ART | 122 | Design II | 3 | DFT | 170 | Engineering Graphics | 3 |
| ART | 131 | Drawing I | 3 | ENG | 125 | Creative Writing I | 3 |
| ART | 132 | Drawing II | 3 | HEA | 110 | Personal Health/Wellness | 3 |
| ART | 171 | Computer Art I | 3 | HEA | 112 | First Aid & CPR | 2 |
| ART | 231 | Printmaking I | 3 | HEA | 120 | Community Health | 3 |
| BIO | 130 | Introductory Zoology | 4 | HIS | 215 | Nineteenth-Century Europe | 3 |
| BIO | 168 | Anatomy & Physiology I | 4 | HIS | 216 | Twentieth-Century Europe | 3 |
| BIO | 169 | Anatomy & Physiology II | 4 | HIS | 226 | The Civil War | 3 |
| BIO | 275 | Microbiology | 4 | HIS | 231 | Recent American History | 3 |
| BUS | 110 | Introduction to Business | 3 | HIS | 236 | North Carolina History | 3 |
| BUS | 115 | Business Law I | 3 | PHI | 230 | Introduction to Logic | 3 |
| BUS | 116 | Business Law II | 3 | PSY | 246 | Adolescent Psychology | 3 |
| CSC | 134 | C++ Programming | 3 | PSY | 263 | Educational Psychology | 3 |

**Total Semester Hours Credit (SHC) in Program:** **64-65 SHC**

*Students who test into two or more developmental areas are required to take ACA 111. Others are exempt and are not required to have this hour of credit for graduation.*

** Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.*

# Pre-Major Programs
# Associate in Arts (A.A.)

Students pursuing one of the following pre-major programs to award the Associate in Arts (A.A.) degree should follow the basic A.A. program requirements, with attention to the following specific program requirements or recommendations. This will facilitate transfer with minimum complications in that particular major. It is however, always best if you know to which institution you plan to transfer in order to consider their requirements.

## Pre-Art Education

ART 114 and ART 115 are required in the *Humanities/Fine Arts.* ART 121, ART 122, ART 131 are required in *Other Required Hours*. Two additional ART courses are recommended from ART 132, ART 171, ART 231, ART 240 or ART 283.

## Pre-Business Administration

POL 120, PSY 150 and SOC 210 are recommended in the *Social/Behavioral Sciences*. Either MAT 161 or MAT 175 and either MAT 263 or MAT 271 must be taken in the *Mathematics* area. In *Other Required Hours*, ACC 120, ACC 121, CIS 110, ECO 251, ECO 252 and MAT 151 are required.

## Pre-Business Education and Marketing Education

In the *Social/Behavioral Sciences* ECO 251 is required with PSY 150 and SOC 210 being recommended. CIS 110 and either MAT 161 or MAT 175 are required in *Mathematics*. ACC 120, ECO 252, and either CIS 115 or CSC 134 are required in *Other Required Hours* with three of the following being recommended: ACC 121, Bus 110, BUS 115, or MAT 151.

## Pre-Criminal Justice

POL 120, PSY 150, and SOC 210 are required in *Social/Behavioral Sciences*. Either MAT 161 or MAT 175 is required and MAT 151 is recommended for the second math course. Under Other Required Hours CJC 111, CJC 121, and CJC 141 are required.

## Pre-Elementary, Middle Grades, Special Education

In the *Humanities/Fine Arts* the literature must be selected from ENG 231,232, or 233. COM 231 is also required as well as one of these courses: ART 111, ART 114, ART 115 or MUS 110. In the *Social/ Behavioral Sciences,* PSY 150 and either SOC 210 or SOC 225 are required. In the *Natural Sciences and Mathematics* BIO 111 and either CHM 151 or PHY 151 are required as well as two of the following: CIS 110, MAT 140 or MAT 161 or higher. In the *Other Required Hours* category it is best to consult the requirements for second majors of the institution to which the student plans to transfer. The following may be helpful: English - 6 SHC from ENG 231, ENG 232, ENG 241, ENG 242, 261, ENG 262, ENG 272, ENG 273, ENG 274; *Social Science:* ALL History courses, PSY 150, PSY 241, PSY 246, PSY 255, PSY 263 and PSY 281; Science: BIO 111, BIO 112, BIO 130, BIO 140, BIO 140A, CHM 151, CHM 152; Mathematics: 12 SHC from MAT 151, MAT 175, MAT 271, MAT 272.

To transfer and be admitted into the major the student must have a minimum of a 2.5 GPA and satisfactory scores on the State Board of Education's PRAXIS tests.

## Pre-English

The literature requirement in *Humanities/Fine Arts* should be met with one of the following literature courses: ENG 231, ENG 232, ENG 241, ENG 242, ENG 261 or ENG 262. A foreign language sequence is recommended: either SPA 111 and SPA 112 or FRE 111 and FRE 112. One math course must be MAT 161 or higher with the second being of higher level mathematics or a CIS course or MAT 151. In *Other Required Hours* another literature course from the above list is required with a History course from HIS 121, HIS 122, HIS 131 or HIS 132 being recommended and an intermediate foreign language sequence: either SPA 211, SPA 212 or FRE 211, FRE 212 being recommended.

## Pre-Health Education

COM 231 is recommended in the *Humanities/Fine Arts* with PSY 150 being required in the *Social/Behavioral Sciences*. Either CHM 151 and CHM 152 or BIO 111 and BIO 112 are required in the *Natural Sciences*. MAT 161 or higher and CIS 110 are required in mathematics. HEA 110, HEA 112, HEA 120, BIO 168, BIO 169, and MAT 151 are required in *Other Required Hours*.

## Pre-History

ENG 113 is recommended as the second composition course. In the *Social/Behavioral Sciences* the HIS 121 and HIS 122 sequence is recommended. In *Mathematics* MAT 161 or higher is required and as the second math either MAT 151 or a higher level math or a CIS course is required. In *Other Required Hours* the HIS 131, HIS 132 sequence is recommended.

## Pre-Nursing

PSY 150, PSY 241 and SOC 210 are required in *Social/Behavioral Sciences*. CHM 151 and CHM 152 are required Natural Sciences. MAT 161 or higher is the first required *Mathematics* with the MAT 151 required as the second math. As Other Required Hours the student must take PSY 281, SOC 213, BIO 168, BIO 169 and BIO 275.

## Pre-Physical Education

COM 231 is required in the *Humanities/Fine Arts* with PSY 150 recommended in the *Social/Behavioral Sciences*. BIO 111 and 112 are recommended for the *Natural Science* requirement. MAT 161 or higher and either MAT 151 or CIS 110 are recommended for the *Mathematics* requirement. PED 110 and two PED activity courses are required in *Other Required Hours*.

## Pre-Political Science

Either SPA 111 and SPA 112 or FRE 111 and FRE 112 are recommended in the *Humanities/Fine Arts* with either COM 110 or COM 231 required. In *Social/Behavioral Sciences* PSY 150 and either GEO 111 or GEO 113 and either SOC 210, SOC 220 or SOC 225 are recommended. In *Mathematics* MAT 161 or higher is required with the second math recommended to be CIS 110. Under *Other Required Hours* POL 120 is required with POL 210, POL 220 and either ECO 251 or ECO 252 being recommended.

## Pre-Psychology

PSY 150 is required in the *Social/Behavioral Science*, with BIO 111 and BIO 112 being required in the *Natural Sciences*. MAT 161 or higher is required in *Mathematics*.

## Pre-Social Science Secondary Education

ENG 113 is recommended as the second composition course. POL 120, SOC 210, and HIS 121, HIS 122 are required at the *Social/Behavioral Sciences*. MAT 161 or higher must be the introductory mathematics taken. GEO 111, HIS 131, HIS 132 and ECO 251, ECO 252 are required in *Other Required Hours*.

## Pre-Sociology

SOC 210 and either SOC 213, SOC 220 or SOC 225 are required in the *Social/Behavioral Sciences*, MAT 161 or higher is required with MAT 151 being recommended as the second *Mathematics*.

# Associate in Fine Arts (A.F.A.) [A10200]

## Degree Requirements (Pending Approval)

**General Education Core** **28 SHC**

**English/Communications (6 SHC)**

*Required:*

| | | |
|---|---|---|
| ENG 111 | Expository Writing | 3 |

*Select one:*

| | | |
|---|---|---|
| ENG 112 | Argument Based Research | 3 or |
| ENG 113 | Literature Based Research | (3) |

**Humanities/Fine Arts (6 SHC)**

Select two courses from the following list in two of these discipline areas: music, foreign language, literature, philosophy, religion.
One course must be a literature course.

| | | | | | |
|---|---|---|---|---|---|
| ENG 231 | American Literature I | 3 | MUS 110 | Music Appreciation | 3 |
| ENG 232 | American Literature II | 3 | PHI 215 | Philosophical Issues | 3 |
| ENG 233 | Major American Writers | 3 | PHI 240 | Introduction to Ethics | 3 |
| ENG 241 | British Literature I | 3 | REL 110 | World Religion | 3 |
| ENG 242 | British Literature II | 3 | REL 211 | Intro. to Old Testament | 3 |
| ENG 251 | Western World Literature I | 3 | REL 212 | Intro. to New Testament | 3 |
| ENG 252 | Western World Literature II | 3 | SPA 111 | Elementary Spanish I | 3 |
| FRE 111 | Elementary French I | 3 | SPA 112 | Elementary Spanish II | 3 |
| FRE 112 | Elementary French II | 3 | SPA 211 | Intermediate Spanish I | 3 |
| FRE 211 | Intermediate French I | 3 | SPA 212 | Intermediate Spanish II | 3 |
| FRE 212 | Intermediate French II | 3 | | | |

**Social/Behavioral Sciences (9 SHC)**

Select three courses from the following list in three of these discipline areas: anthropology, economics, geography, history, political science, psychology or sociology.
One course must be a history course.

| | | | | | |
|---|---|---|---|---|---|
| ANT 210 | General Anthropology | 3 | POL 120 | American Government | 3 |
| ECO 251 | Prin. of Microeconomics | 3 | POL 210 | Comparative Government | 3 |
| GEO 111 | World Regional Geography | 3 | POL 220 | International Relations | 3 |
| GEO 113 | Economic Geography | 3 | PSY 150 | General Psychology | 3 |
| GEO 130 | Gen. Physical Geography | 3 | SOC 210 | Intro. to Sociology | 3 |
| HIS 121 | Western Civilization I | 3 | SOC 213 | Sociology of the Family | 3 |
| HIS 122 | Western Civilization II | 3 | SOC 220 | Social Problems | 3 |
| HIS 131 | American History I | 3 | SOC 225 | Social Diversity | 3 |
| HIS 132 | American History II | 3 | | | |

**Natural Sciences/Mathematics (7 SHC)**

From the following list, select one course in introductory mathematics and one course, including the accompanying laboratory work, from the biological and physical science courses.

| | | | | | |
|---|---|---|---|---|---|
| BIO 111 | General Biology I | 4 | MAT 161 | College Algebra | 3 |
| BIO 112 | General Biology II | 4 | MAT 162 | College Trigonometry | 3 |
| CHM 151 | General Chemistry I | 4 | MAT 175 | Precalculus | 4 |
| CHM 152 | General Chemistry II | 4 | MAT 263 | Brief Calculus | 3 |
| PHY 151 | College Physics I | 4 | MAT 271 | Calculus I | 4 |
| PHY 152 | College Physics II | 4 | | | |
| PHY 251 | General Physics I | 5 | | | |
| PHY 252 | General Physics II | 4 | | | |

**Other Required Hours** **36-37 SHC**

**A. Required: (4 SHC)**

| | | |
|---|---|---|
| ACA 111 | College Student Success | 1 |
| COM 120 | Interpersonal Communication | 3 |

Two Physical Education Courses **(2-3 SHC)**
to be selected from the following:

| | | | | | |
|---|---|---|---|---|---|
| PED 110 | Fit & Well for Life | 2 | PED 132 | Racquetball-Beginning | 1 |
| PED 111 | Physical Fitness I | 1 | PED 133 | Racquetball-Intermediate | 1 |
| PED 113 | Aerobics I | 1 | PED 137 | Badminton | 1 |
| PED 114 | Aerobics II | 1 | PED 139 | Bowling-Beginning | 1 |
| PED 117 | Weight Training I | 1 | PED 142 | Lifetime Sports | 1 |
| PED 121 | Walk, Jog, Run | 1 | PED 143 | Volleyball-Beginning | 1 |
| PED 128 | Golf-Beginning | 1 | PED 144 | Volleyball-Intermediate | 1 |
| PED 129 | Golf-Intermediate | 1 | PED 145 | Basketball-Beginning | 1 |
| PED 130 | Tennis-Beginning | 1 | PED 146 | Basketball-Intermediate | 1 |
| PED 131 | Tennis-Intermediate | 1 | | | |

**B. Art Major Core Required (12 SHC)**

| | | | | | |
|---|---|---|---|---|---|
| ART 114 | Art History Survey I | 3 | ART 121 | Design I | 3 |
| ART 115 | Art History Survey II | 3 | ART 131 | Drawing I | 3 |

**Art Elective Credits to be chosen from the following course list: (15 SHC)**

| | | | | | |
|---|---|---|---|---|---|
| ART 122 | Design II | 3 | ART 241 | Painting II | 3 |
| ART 132 | Drawing II | 3 | ART 244 | Watercolor | 3 |
| ART 171 | Computer Art I | 3 | ART 281 | Sculpture I | 3 |
| ART 191 | Selected Topics in Art | 1 | ART 282 | Sculpture II | 3 |
| ART 193 | Selected Topics in Art | 3 | ART 283 | Ceramics I | 3 |
| ART 231 | Printmaking I | 3 | ART 284 | Ceramics II | 3 |
| ART 240 | Painting I | 3 | ART 288 | Studio | 3 |

**C. General Electives ( 3 SHC)**

These remaining credits can be chosen from other Art courses or from any other courses listed above that have not been taken for other requirements and which will satisfy the requirements of the senior institution to which the student plans to transfer.

**One SHC in Co-Op can be chosen for career exploration.**

**Total Semester Hours Credit (SHC) in Program** **64-65**

*Students who test into two or more developmental areas are required to take ACA 111. Others are exempt and are not required to have this hour of credit for graduation.*

# Associate in Science (A.S.) [A10400]

## Degree Requirements

**General Education Core** **44 SHC***

**A. English/Communications (6 SHC)**

*Required:*

| | | | |
|---|---|---|---|
| ENG | 111 | Expository Writing | 3 |

*Select one:*

| | | | |
|---|---|---|---|
| ENG | 112 | Argument Based Research | 3 |
| ENG | 113 | Literature Based Research | 3 |
| ENG | 114 | Professional Research & Reporting | 3 |

**B. Humanities/Fine Arts (12 SHC)**

A literature course and COM 120 are required.
Select two additional courses from two different discipline areas

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ART | 111 | Art Appreciation | 3 | FRE | 211 | Intermediate French I | 3 |
| ART | 114 | Art History Survey I | 3 | FRE | 212 | Intermediate French II | 3 |
| ART | 115 | Art History Survey II | 3 | MUS | 110 | Music Appreciation | 3 |
| COM | 120 | Interpersonal Communication | 3 | PHI | 215 | Philosophical Issues | 3 |
| ENG | 231 | American Literature I | 3 | PHI | 240 | Introduction to Ethics | 3 |
| ENG | 232 | American Literature II | 3 | REL | 110 | World Religions | 3 |
| ENG | 233 | Major American Writers | 3 | REL | 211 | Intro. to Old Testament | 3 |
| ENG | 241 | British Literature I | 3 | REL | 212 | Intro. to New Testament | 3 |
| ENG | 242 | British Literature II | 3 | SPA | 111 | Elementary Spanish I | 3 |
| ENG | 251 | Western World Literature I | 3 | SPA | 112 | Elementary Spanish II | 3 |
| ENG | 252 | Western World Literature II | 3 | SPA | 211 | Intermediate Spanish I | 3 |
| FRE | 111 | Elementary French I | 3 | SPA | 212 | Intermediate Spanish II | 3 |
| FRE | 112 | Elementary French II | 3 | | | | |

**Social/Behavioral Sciences (12 SHC)**

Select four courses from at least three of the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology. At least one course must be a history course.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ANT | 210 | General Anthropology | 3 | POL | 120 | American Government | 3 |
| ECO | 251 | Prin. of Microeconomics | 3 | POL | 210 | Comparitive Government | 3 |
| ECO | 252 | Prin. of Macroeconomics | 3 | POL | 220 | International Relations | 3 |
| GEO | 111 | World Regional Geography | 3 | PSY | 150 | General Psychology | 3 |
| GEO | 113 | Economic Geography | 3 | PSY | 241 | Developmental Psychology | 3 |
| GEO | 130 | General Physical Geography | 3 | PSY | 281 | Abnormal Psychology | 3 |
| HIS | 121 | Western Civilization I | 3 | SOC | 210 | Introduction to Sociology | 3 |
| HIS | 122 | Western Civilization II | 3 | SOC | 213 | Sociology of the Family | 3 |
| HIS | 131 | American History I | 3 | SOC | 220 | Social Problems | 3 |
| HIS | 132 | American History II | 3 | SOC | 225 | Social Diversity | 3 |

**Natural Sciences/Mathematics ~~(14 SHC)~~**

*Natural Sciences (8 SHC): A two-course sequence in general biology, general chemistry, or general physics is required.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIO | 111 | General Biology I | 4 | PHY | 151 | College Physics I | 4 |
| BIO | 112 | General Biology II | 4 | PHY | 152 | College Physics II | 4 |
| CHM | 151 | General Chemistry I | 4 | PHY | 251 | General Physics I | 4 |
| CHM | 152 | General Chemistry II | 4 | PHY | 252 | General Physics II | 4 |

*Mathematics (6 SHC): At least one course in mathematics at the precalculus algebra level or above is required; the other course may be a higher level mathematics course or may be selected from among other quantitative subjects, such as computer science and statistics.*

*Required:*

| | | | |
|---|---|---|---|
| MAT | 175 | Precalculus | 4 |

*Second Math:*

| | | | |
|---|---|---|---|
| MAT | 151 | Statistics I | 4 |
| MAT | 271 | Calculus I | 4 |
| MAT | 272 | Calculus II | 4 |
| MAT | 273 | Calculus III | 4 |

**Other Required Hours** **20-21 SHC**

Courses in health, physical education, college orientation, and/or study skills may be included as other required hours. Work experience (Co-op) may be included up to 1 SHC for career exploration.

*Required:* **(3-4)**

| | | | |
|---|---|---|---|
| ACA | 111 | College Student Success | 1 |

Two Physical Education Courses to be selected from the following: 2 or 3

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PED | 110 | Fit & Well for Life | 2 | PED | 132 | Racquetball - Beginning | 1 |
| PED | 111 | Physical Fitness I | 1 | PED | 133 | Racquetball - Intermediate | 1 |
| PED | 113 | Aerobics I | 1 | PED | 137 | Badminton | 1 |
| PED | 114 | Aerobics II | 1 | PED | 139 | Bowling - Beginning | 1 |
| PED | 117 | Weight Training I | 1 | PED | 142 | Lifetime Sports | 1 |
| PED | 121 | Walk, Jog, Run | 1 | PED | 143 | Volleyball - Beginning | 1 |
| PED | 128 | Golf - Beginning | 1 | PED | 144 | Volleyball - Intermediate | 1 |
| PED | 129 | Golf - Intermediate | 1 | PED | 145 | Basketball - Beginning | 1 |
| PED | 130 | Tennis - Beginning | 1 | PED | 146 | Basketball - Intermediate | 1 |
| PED | 131 | Tennis - Intermediate | | | | | |

**Other Required Hours (17-18 SHC)**

A minimun of 14 SHC of college transfer courses in mathematics, natural sciences, computer science, and/or other pre-major courses is required. The remaining hours may be selected from elective transfer courses.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BIO | 130 | Introductory Zoology | 4 | ENG | 125 | Creative Writing | 3 |
| BIO | 168 | Anatomy and Physiology I | 4 | HEA | 112 | First Aid & CPR | 2 |
| BIO | 169 | Anatomy and Physiology II | 4 | HIS | 226 | The Civil War | 3 |
| BIO | 275 | Microbiology | 4 | HIS | 236 | North Carolina History | 3 |
| CSC | 134 | C++ Programming | 3 | MAT | 280 | Linear Algebra | 3 |
| DFT | 170 | Engineering Graphics | 3 | MAT | 285 | Differential Equations | 3 |

**Total Semester Hours Credit in Program:** **64-65 SHC**

*Students who test into two or more developmental areas are required to take ACA 111. Others are exempt and are not required to have this hour of credit for graduation.*

* *Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.*

# Pre-Major Programs
# Associate in Science (A.S.)

Students pursuing one of the following pre-major programs to award the Associate in Science (A.S.) degree should follow the basic A.S. program requirements, but with attention to the following specific program requirements or recommendations. Following these requirements or recommendations should facilitate transfer in a specific major. However it is always best if you know to which institution you plan to transfer in order to consider their requirements.

## Pre-Biology and Biology Education

CHM 151 and CHM 152 are required as *Natural Sciences* and MAT 175 or higher is required as the introductory *Mathematics*. As *Other Required Hours*, BIO 111, BIO 112 and BIO 130 are required. Either the CHM 251, CHM 252, PHY 151, PHY 152 or PHY 251, PHY 252 sequence is recommended. CHM 251 and CHM 252 can be acquired through the *Charlotte Area Educational Consortium* at a near-by college or university at community college tuition rates.

## Pre-Chemistry and Chemistry Education

PSY 150 is recommended as a *Social/Behavioral Science*. PHY 251 and 252 are required as *Natural Sciences*. MAT 271 and MAT 272 are required *Mathematics* courses. CHM 151, CHM 152 and CHM 251 and CHM 252 are required with MAT 273 being recommended as *Other Required Hours*. CHM 251 and CHM 252 can be obtained through the *Charlotte Area Educational Consortium* at a near-by college or university at community college tuition rates.

## Pre-Engineering

ENG 113 is recommended as the second composition course. The Literature requirement must be satisfied from ENG 231, ENG 232, ENG 233, ENG 241, ENG 242, ENG 251 or ENG 252. An elementary foriegn language sequence SPA 111, 112 or FRE 111, 112 is recommended in the *Humanities/Fine Arts*. Either the HIS 121, HIS 122 or HIS 131, HIS 132 sequence and either ECO 251 or ECO 252 are required in the *Social/Behavioral Sciences*. Use PHY 251 and PHY 252 as the *Natural Science* and MAT 271 and MAT 272 as the *Mathematics* requirement. In *Other Required Hours* CHM 151, MAT 273 and MAT 285 , CIS 134 and either CHM 152 or DFT 170 are required.

## Pre-Mathematics

PHY 251 and PHY 252 are required as *Natural Sciences* and MAT 175 and MAT 271 are required as *Mathematics* courses. MAT 272, MAT 273, either MAT 280 or MAT 285 and CIS 134 are required in *Other Required Hours*.

Needs 1 class

# General Occupational Technology [D55280]

## Diploma Program

### Curriculum Description

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade their skills and to earn a diploma by taking courses suited for their occupational interests and/or needs.

The curriculum content will be individualized for students according to their occupational interests and needs. A program of study for each student will be selected from associate degree level courses offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry level employment opportunities.

ok

**General Education Core (6 SHC)**
*Select 6 SHC from the following courses:*

| | | | | | |
|---|---|---|---|---|---|
| ART | 111 | Art Appreciation | 3 | MAT | 110 Mathematic Measurement 3 |
| ENG | 102 | Applied Communications II | 3 | or MAT | 140 Survey of Mathematics (3) |
| or ENG | 111 | Expository Writing | (3) | or MAT | 121 Algebra/Trigonometry I (3) |
| ENG | 112 | Argument-Based Research | 3 | or MAT | 161 College Algebra (3) |
| or ENG | 113 | Literature-Based Research | (3) | MUS | 110 Music Appreciation 3 |
| ENG | 114 | Professional Research & Reporting | 3 | PHI | 215 Philosophical Issues 3 |
| COM | 120 | Interpersonal Communications | 3 | PSY | 118 Interpersonal Psychology 3 |
| COM | 231 | Public Speaking | 3 | REL | 110 World Religions 3 |
| | | | | SOC | 225 Social Diversity 3 |

**Major Area (30 SHC)** (1 class)
*Select 30 SHC from the following courses:*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ACC | 120 | Prin of Accounting I | 4 | MEC | 110 | Intro to CAD/CAM | 2 |
| BIO | 111 | General Biology I | 4 | MEC | 180 | Engineering Materials | 3 |
| BIO | 168 | Anatomy & Physiology I | 4 | OMT | 155 | Meeting & Present Skills | 3 |
| BIO | 169 | Anatomy & Physiology II | 4 | OST | 131 | Keyboarding | 2 |
| BIO | 275 | Microbiology | 4 | OST | 136 | Word Processing | 2 |
| BUS | 110 | Introduction to Business | 3 | PHY | 131 | Physics/Mechanics | 4 |
| BUS | 121 | Business Math | 3 | PHY | 151 | College Physics I | 4 |
| BUS | 230 | Small Business Management | 3 | PHY | 152 | College Physics II | 4 |
| BUS | 253 | Leadership and Mgt Skills | 3 | POL | 120 | American Government | 3 |
| CHM | 130 | General, Organic, & Biochemistry | 3 | POL | 130 | State & Local Government | 3 |
| CIS | 110 | Introduction to Computers | 3 | PSY | 150 | General Psychology | 3 |
| CIS | 115 | Intro to Programming & Logic | 3 | PSY | 241 | Developmental Psychology | 3 |
| CIS | 120 | Spreadsheet I | 3 | PSY | 255 | Intro to Exceptionality | 3 |
| DFT | 111 | Technical Drafting I | 4 | PSY | 265 | Behavioral Modifications | 3 |
| DFT | 119 | Basic CAD | 2 | PSY | 281 | Abnormal Psychology | 3 |
| ECO | 251 | Principles of Microeconomics | 3 | SOC | 213 | Sociology of the Family | 3 |
| ECO | 252 | Principles of Macroeconomics | 3 | SOC | 210 | Introduction to Sociology | 3 |
| HYD | 110 | Hydraulics/Pneumatics I | 3 | SOC | 220 | Social Problems | 3 |
| MAT | 122 | Algebra/Trigonometry II | 3 | | | | |
| MAT | 162 | College Trigonometry | 3 | | | | |

**Electives (3 SHC)**
Elective hours can be chosen from any other college level courses in the college catalog.

**Total Semester Hours Credit Required** **39**

# Cooperative Education Courses

to be used in degree programs where COE credits are allowed

| | | | |
|---|---|---|---|
| COE | 110 | World of Work | 1 |
| COE | 111 | Co-Op Work Experience I | 1 |
| COE | 112 | Co-Op Work Experience I | 2 |
| COE | 115 | Work Exp Seminar I | 1 |
| COE | 121 | Co-Op Work Experience II | 1 |
| COE | 122 | Co-Op Work Experience II | 2 |
| COE | 131 | Co-Op Work Experience III | 1 |
| COE | 132 | Co-Op Work Experience III | 2 |

# Developmental Education Courses

| | | | |
|---|---|---|---|
| ENG | 080 | Writing Foundations | 4 |
| ENG | 090 | Composition Strategies | 3 |
| MAT | 060 | Essential Mathematics | 4 |
| MAT | 070 | Introductory Algebra | 4 |
| MAT | 080 | Intermediate Algebra | 4 |
| OST | 080 | Keyboarding Literacy | 2 |
| RED | 080 | Introduction to College Reading | 4 |
| RED | 090 | Improved College Reading | 4 |

# Associate in Applied Science (A.A.S.)

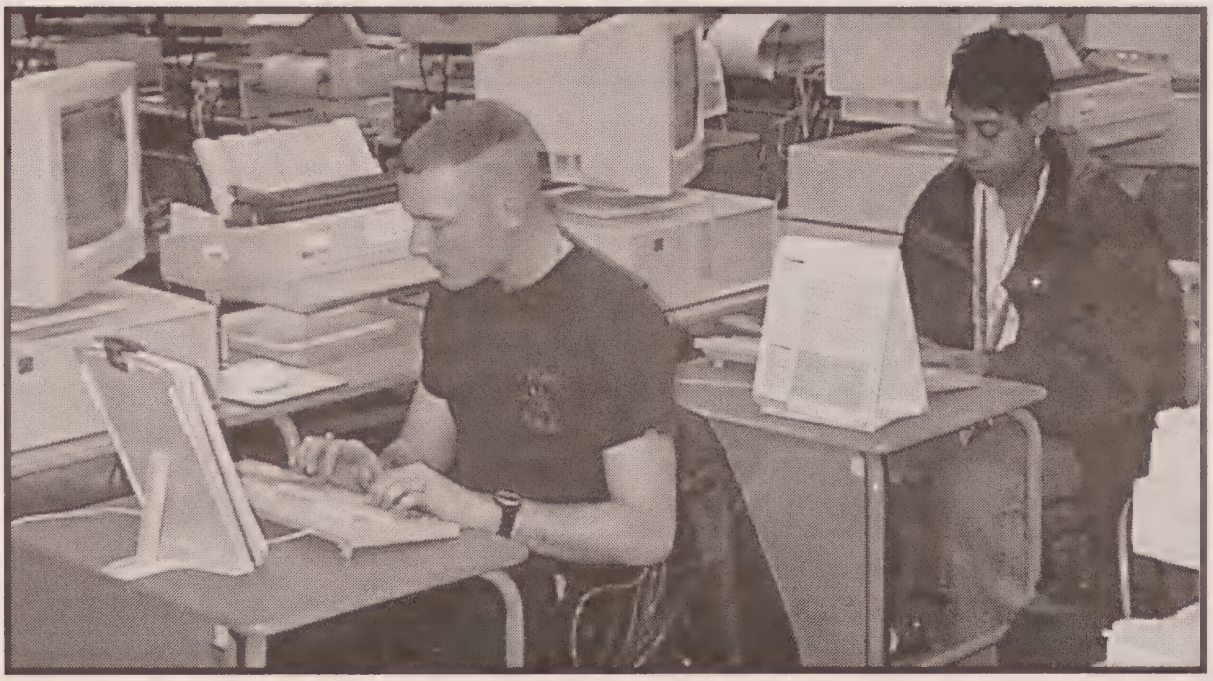
## Degree Requirements

## Humanities/Fine Arts Courses

| | | | |
|---|---|---|---|
| ART | 111 | Art Appreciation | 3 |
| ART | 114 | Art History Survey I | 3 |
| ART | 115 | Art History Survey II | 3 |
| ENG | 125 | Creative Writing I | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature II | 3 |
| ENG | 233 | Major American Writers | 3 |
| ENG | 241 | British Literature I | 3 |
| ENG | 242 | British Literature II | 3 |
| ENG | 251 | Western World Literature I | 3 |
| ENG | 252 | Western World Literature II | 3 |
| FRE | 111 | Elementary French I | 3 |
| FRE | 112 | Elementary French II | 3 |
| FRE | 211 | Intermediate French I | 3 |
| FRE | 212 | Intermediate French II | 3 |
| MUS | 110 | Music Appreciation | 3 |
| PHI | 215 | Philosophical Issues | 3 |
| PHI | 240 | Introduction to Ethics | 3 |
| REL | 110 | World Religions | 3 |
| REL | 211 | Introduction to Old Testament | 3 |
| REL | 212 | Introduction to New Testament | 3 |
| SPA | 111 | Elementary Spanish I | 3 |
| SPA | 112 | Elementary Spanish II | 3 |
| SPA | 211 | Intermediate Spanish I | 3 |
| SPA | 212 | Intermediate Spanish II | 3 |

# Social/Behavioral Science Courses (A.A.S.)

| | | | |
|---|---|---|---|
| ANT | 210 | General Anthropology | 3 |
| ECO | 251 | Principles of Microeconomics | 3 |
| GEO | 111 | World Regional Geography | 3 |
| GEO | 113 | Economic Geography | 3 |
| GEO | 130 | General Physical Geography | 3 |
| HIS | 121 | Western Civilization I | 3 |
| HIS | 122 | Western Civilization II | 3 |
| HIS | 131 | American History I | 3 |
| HIS | 132 | American History II | 3 |
| HIS | 193 | Selected topics in History | 3 |
| HIS | 215 | Nineteenth-Century Europe | 3 |
| HIS | 216 | Twentieth-Century Europe | 3 |
| HIS | 226 | The Civil War | 3 |
| HIS | 231 | Recent American History | 3 |
| HIS | 293 | Selected Topics in History | 3 |
| POL | 120 | American Government | 3 |
| POL | 130 | State & Local Government | 3 |
| POL | 210 | Comparative Government | 3 |
| POL | 220 | International Relations | 3 |
| PSY | 118 | Interpersonal Psychology | 3 |
| PSY | 150 | General Psychology | 3 |
| SOC | 210 | Introduction to Sociology | 3 |
| SOC | 213 | Sociology of the Family | 3 |
| SOC | 220 | Social Problems | 3 |
| SOC | 225 | Social Diversity | 3 |



# ACCOUNTING [A25100]

## A.A.S. DEGREE

**Curriculum Description:**

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

### Course and Hour Requirements

| | | Title | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0) |
| ENG | 111 | Expository Writing | 3 | (3 | 0) |
| ENG | 112 | Argument-Based Research Or | 3 | (3 | 0) |
| ENG | 113 | Literature-Based Research Or | [3 | (3 | 0)] |
| ENG | 114 | Professional Research & Reporting | [3 | (3 | 0)] |
| ECO | 252 | Principles of Macroeconomics | 3 | (3 | 0) |
| MAT | 140 | Survey of Mathematics Or | 3 | (3 | 0) |
| MAT | 161 | College Algebra | [3 | (3 | 0)] |
| - | - | Humanities/Fine Arts Elective | 3 | (3 | 0) |
| | | **Total General Education Required Hours** | **18** | **(18** | **0)** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | 1 | (1 | 0) |
| ACC | 120 | Principles of Accounting I | 4 | (3 | 2) |
| ACC | 121 | Principles of Accounting II | 4 | (3 | 2) |
| ACC | 131 | Federal Income Taxes | 3 | (2 | 2) |
| ACC | 150 | Computerized General Ledger | 2 | (1 | 2) |
| ACC | 220 | Intermediate Accounting I | 4 | (3 | 2) |
| ACC | 221 | Intermediate Accounting II | 4 | (3 | 2) |
| ACC | 225 | Cost Accounting | 3 | (3 | 0) |
| BUS | 115 | Business Law I | 3 | (3 | 0) |
| CIS | 110 | Introduction to Computers | 3 | (2 | 2) |
| ECO | 251 | Principles of Microeconomics | 3 | (3 | 0) |
| - | - | Major Elective * | 20 | (20 | 0) |
| | | | **54** | **47** | **14** |

***Approved Major Electives**

| | | | |
|---|---|---|---|
| ACC | 110 | Ten-Key Calculator | 1 |
| ACC | 140 | Payroll Accounting | 2 |
| ACC | 269 | Auditing | 3 |
| BUS | 110 | Introduction to Business | 3 |
| BUS | 116 | Business Law II | 3 |
| BUS | 121 | Business Math | 3 |
| BUS | 135 | Principles of Supervision | 3 |
| BUS | 137 | Principles of Management | 3 |
| BUS | 147 | Business Insurance | 3 |
| BUS | 153 | Human Resource Management | 3 |
| BUS | 225 | Business Finance | 3 |
| BUS | 230 | Small Business Management | 3 |
| BUS | 252 | Labor Relations | 3 |
| BUS | 260 | Business Communication | 3 |
| BUS | 270 | Professional Development | 3 |
| CIS | 115 | Intro to Prog & Logic | 3 |
| CIS | 120 | Spreadsheet I | 3 |
| CIS | 152 | Database Concepts & Apps | 3 |
| CIS | 172 | Intro to the Internet | 3 |
| COE | - | Co-Op | 1-3 |
| MKT | 120 | Principles of Marketing | 3 |
| MKT | 121 | Retailing | 3 |
| MKT | 123 | Fundamentals of Selling | 3 |
| NET | 110 | Data Comm/Networking | 3 |
| OMT | 110 | Intro to Operations Mgmt | 3 |
| OMT | 112 | Materials Management | 3 |
| OST | 131 | Keyboarding | 2 |

**Total Semester Credit Hours in Program 72 SHC**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| ACC | 120 | 4 |
| ENG | 111 | 3 |
| CIS | 110 | 3 |
| Major Electives | | 6 |
| | | 17 |
| **Spring Semester** | | |
| ACC | 121 | 4 |
| ENG | 112 Or | 3 |
| ENG | 113 Or | |
| ENG | 114 | |
| MAT | 140 Or | 3 |
| MAT | 161 | |
| Humanities/Fine Arts | | 3 |
| Major Elective | | 3 |
| | | 16 |
| **Summer Semester** | | |
| ACC | 150 | 2 |
| Major Electives | | 6 |
| | | 8 |

### Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACC | 220 | 4 |
| ACC | 225 | 3 |
| BUS | 115 | 3 |
| ECO | 251 | 3 |
| Major Elective | | 2 |
| | | 15 |
| **Spring Semester** | | |
| ACC | 131 | 3 |
| ACC | 221 | 4 |
| COM | 120 | 3 |
| ECO | 252 | 3 |
| Major Elective | | 3 |
| | | 16 |

# Air Conditioning, Heating & Refrigeration
# [D35100]
## Diploma Program

**Curriculum Description:**

The Air Conditioning, Heating, and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing, and advanced comfort systems.

Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems. A.A.S. degree graduates should be able to demonstrate an understanding of system selection and balance, and advanced systems.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| ENG | 102 | Applied Communications II | **3** | (3 | 0) |
| MAT | 110 | Mathematical Measurement | **3** | (2 | 2) |
| **Total General Education Required Hours** | | | **6** | (5 | 2) |
| | | | | | |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0) |
| AHR | 110 | Introduction to Refrigeration | **5** | (2 | 6) |
| AHR | 111 | HVACR Electricity | **3** | (2 | 2) |
| AHR | 112 | Heating Technology | **4** | (2 | 4) |
| AHR | 113 | Comfort Cooling | **4** | (2 | 4) |
| AHR | 114 | Heat Pump Technology | **4** | (2 | 4) |
| AHR | 133 | HVAC Servicing | **4** | (2 | 6) |
| AHR | 180 | HVACR Customer Relations | **1** | (1 | 0) |
| AHR | 210 | Residential Building Code | **2** | (1 | 2) |
| AHR | 211 | Residential System Design | **3** | (2 | 2) |
| BPR | 130 | Blueprint Reading/Const. | **2** | (1 | 2) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| WLD | 112 | Basic Welding Processes | **2** | (1 | 3) |
| | **Total Major Required Hours** | | **38** | (21 | 37) |
| | | | | | |
| **Total Required Semester Credit Hours in Program** | | | **44** | | |

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Certificate Options

## Air Conditioning, Heating, And Refrigeration Technology

| | | Title | Credit | Class | Lab |
|---|---|---|---|---|---|
| AHR | 110 | Introduction to Refrigeration | 5 | (2 | 6) |
| AHR | 111 | HVACR Electricity | 3 | (2 | 2) |
| AHR | 113 | Comfort Cooling | 4 | (2 | 4) |
| AHR | 114 | Heat Pump Technology | 4 | (2 | 4) |
| AHR | 180 | HVACR Customer Relations | 1 | (1 | 0) |
| **Total Semester Hours Required for Certificate** | | | **17** | **(9** | **16)** |

## Air Conditioning and Heating Design

| | | | | | |
|---|---|---|---|---|---|
| AHR | 110 | Introduction to Refrigeration | 5 | (2 | 6) |
| AHR | 111 | HVACR Electricity | 3 | (2 | 2) |
| AHR | 210 | Residential Building Code | 2 | (1 | 2) |
| AHR | 211 | Residential System Design | 3 | (2 | 2) |
| **Total Semester Hours Required for Certificate** | | | **13** | **(7** | **12)** |

## Refrigeration and Heating Servicing

| | | | | | |
|---|---|---|---|---|---|
| AHR | 110 | Introduction to Refrigeration | 5 | (2 | 6) |
| AHR | 111 | HVACR Electricity | 3 | (2 | 2) |
| AHR | 112 | Heating Technology | 4 | (2 | 4) |
| AHR | 133 | HVAC Servicing | 4 | (2 | 6) |
| **Total Semester Hours Required for Certificate** | | | **16** | **(8** | **18)** |

# Suggested Curriculum by Semesters

### First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| AHR | 110 | 5 |
| AHR | 112 or | 4 |
| AHR | 113 | *4 |
| | | 10 |
| **Spring Semester** | | |
| AHR | 111 | 3 |
| AHR | 114 or | 4 |
| AHR | 133 | *4 |
| | | 7 |
| **Summer Semester** | | |
| AHR | 180 | 1 |
| AHR | 210 | 2 |
| CIS | 110 | 3 |
| | | 6 |

### Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| AHR | 112 or | 4 |
| AHR | 113 | *4 |
| BPR | 130 | 2 |
| MAT | 110 | 3 |
| | | 9 |
| **Spring Semester** | | |
| AHR | 114 or | 4 |
| AHR | 133 | *4 |
| ENG | 102 | 3 |
| | | 7 |
| **Summer Semester** | | |
| AHR | 211 | 3 |
| WLD | 112 | 2 |
| | | 5 |

**Note: AHR 112, AHR 133 taught odd years only; AHR 113, AHR 114 taught even years only, according to the year of the fall semester.*

# Associate Degree Nursing [A45120]

## A.A.S. Degree

### Curriculum Description:

The Associate Degree Nursing (non-integrated) curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physician's offices, industry, and community agencies.

**Note:** *See Admission requirements for the ADN program outlined in the "Admissions, Expenses and Financial Aid " section beginning on page 14.*

### Course and Hour Requirements

| Title | | | Credit | Hours (Class | Lab | Clinical) |
|---|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | | |
| BIO | 275 | Microbiology | **4** | (3 | 3 | 0) |
| ENG | 111 | Expository Writing | **3** | (3 | 0 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0 | 0) |
| PSY | 150 | Introduction to Psychology | **3** | (3 | 0 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0 | 0) |
| | **Total General Education Semester Hours** | | **16** | **(15** | **3** | **0)** |
| **Major Required Courses** | | | | | | |
| NUR | 115 | Fundamentals of Nursing | **5** | (2 | 3 | 6) |
| NUR | 116 | Nursing of Older Adults | **4** | (2 | 3 | 3) |
| NUR | 117 | Pharmacology | **2** | (1 | 3 | 0) |
| NUR | 125 | Maternal/Child Nursing | **8** | (5 | 3 | 6) |
| NUR | 133 | Nursing Assessment | **3** | (2 | 3 | 0) |
| NUR | 135 | Adult Nursing I | **9** | (5 | 3 | 9) |
| NUR | 185 | Mental Health Nursing | **5** | (3 | 0 | 6) |
| NUR | 235 | Adult Nursing II | **10** | (4 | 3 | 15) |
| BIO | 168 | Anatomy & Physiology I | **4** | (3 | 3 | 0) |
| BIO | 169 | Anatomy & Physiology II | **4** | (3 | 3 | 0) |
| PSY | 241 | Developmental Psychology | **3** | (3 | 0 | 0) |
| PSY | 281 | Abnormal Psychology | **3** | (3 | 0 | 0) |
| | **Total Major Semester Hours** | | **60** | **(36** | **27** | **45)** |
| **Total Semester Hours Credit Required for Program** | | | **76** | | | |

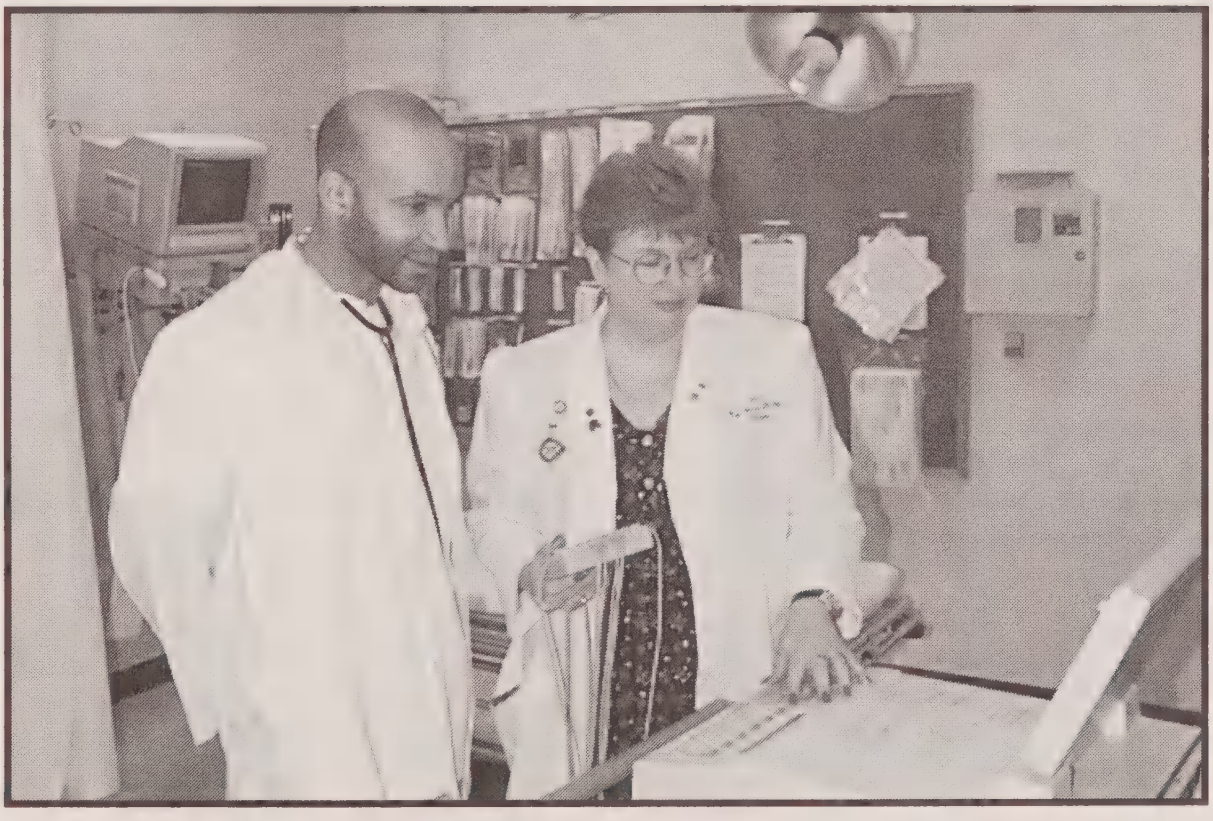
# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| BIO | 168 | 4 |
| NUR | 115 | 5 |
| NUR | 117 | 2 |
| PSY | 150 | 3 |
| | | 14 |
| **Spring Semester** | | |
| BIO | 169 | 4 |
| NUR | 133 | 3 |
| NUR | 135 | 9 |
| PSY | 241 | 3 |
| | | 19 |
| **Summer Semester** | | |
| BIO | 275 | 4 |
| ENG | 111 | 3 |
| NUR | 116 | 4 |
| PSY | 281 | 3 |
| | | 14 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ENG | 114 | 3 |
| NUR | 125 | 8 |
| Humanities/Fine Arts | | 3 |
| | | 14 |
| **Spring Semester** | | |
| NUR | 185 | 5 |
| NUR | 235 | 10 |
| | | 15 |



# Basic Law Enforcement Training [C55120]

## Certificate Program

### Curriculum Description:

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State-commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcoholic beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations.

Successful graduates receive a curriculum certificate and are qualified to take certification examinations mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or the North Carolina Sheriffs' Education and Training Standards Commission.

### Course and Hour Requirements

| Title | | | Credits | Hours Class | Lab | Clin |
|---|---|---|---|---|---|---|
| **Major Required Courses** | | | | | | |
| CJC | 100 | Basic Law Enforcement Training | **18** | (9 | 0 | 27) |
| **Total Semester Credit Hours in Program** | | | **18** | | | |

| Subject: | Contact Hours |
|---|---|
| Reading Test and Orientation | 4 |
| Constitutional Law | 4 |
| Laws of Arrest, Search, & Seizure | 24 |
| Arrest Procedures | 8 |
| Law Enforcement Communications | 4 |
| Physical Fitness | 51 |
| Mechanics of Arrest: Vehicle Stops | 16 |
| Elements of Criminal Law | 24 |
| Firearms | 48 |
| ABC Law | 4 |
| First Responder | 41 |
| Juvenile Law | 8 |
| Patrol Techniques | 20 |
| Defense Tactics | 32 |
| Crime Prevention | 4 |
| Processing the Arrestee | 4 |
| Report Writing | 12 |

| Subject: | Contact Hours |
|---|---|
| Controlled Substance | 8 |
| Special Populations | 12 |
| Custody Procedures | 2 |
| Dealing with Victims and Public | 8 |
| Interviews | 8 |
| Hazardous Materials | 12 |
| Crisis Management | 20 |
| Motor Vehicle Law | 20 |
| Civil Disorders | 8 |
| Testifying in Court | 12 |
| Criminal Investigation | 31 |
| Driver Training | 44 |
| Civil Process | 25 |
| Traffic Accident | 24 |
| Techniques of Traffic Enforcement | 8 |
| Supplemental Custody | 10 |
| Testing - Reviewing | 16 |

**Total Contact Hours** **576**

***Any student who has completed the Basic Law Enforcement Training Program (BLET) can receive 10 SHC in the Criminal Justice Program for the following courses:*

| | | | |
|---|---|---|---|
| CJC | 131 | Criminal Law | 3 |
| CJC | 132 | Procedure and Evidence | 3 |
| CJC | 221 | Investigative Principles | 4 |

# Business Administration [A25120]
## A.A. S. Degree

### Curriculum Description:

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

**Course and Hour Requirements**

| Title | | | Credits | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 112 | Argument-Based Research Or | **3** | (3 | 0) |
| ENG | 113 | Literature-Based Research Or | [3 | (3 | 0)] |
| ENG | 114 | Professional Research & Reporting | [3 | (3 | 0)] |
| MAT | 140 | Survey of Mathematics Or | **3** | (3 | 0) |
| MAT | 161 | College Algebra | [3 | (3 | 0)] |
| PSY | 118 | Interpersonal Psychology Or | **3** | (3 | 0) |
| PSY | 150 | General Psychology Or | [3 | (3 | 0) |
| SOC | 210 | Introduction to Sociology | [3 | (3 | 0)] |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| | | **Total General Education Hours** | **18** | (18 | 0) |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0) |
| ACC | 120 | Principles of Accounting I | **4** | (3 | 2) |
| ACC | 121 | Principles of Accounting II | **4** | (3 | 2) |
| BUS | 110 | Introduction to Business | **3** | (3 | 0) |
| BUS | 115 | Business Law I | **3** | (3 | 0) |
| BUS | 116 | Business Law II | **3** | (3 | 0) |
| BUS | 121 | Business Math | **3** | (2 | 2) |
| BUS | 137 | Principles of Management | **3** | (3 | 0) |
| BUS | 225 | Business Finance | **3** | (2 | 2) |
| BUS | 260 | Business Communication | **3** | (3 | 0) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| CIS | 120 | Spreadsheet I | **3** | (2 | 2) |
| ECO | 251 | Principles of Microeconomics | **3** | (3 | 0) |
| ECO | 252 | Principles of Macroeconomics | **3** | (3 | 0) |
| MKT | 120 | Principles of Marketing | **3** | (3 | 0) |
| OST | 131 | Keyboarding | **2** | (1 | 2) |
| - | - | Major Electives* | **9** | (9 | 0) |
| | | **Total Major Semester Hours** | **56** | **(49** | **14)** |

***Approved Major Electives**

| | | | |
|---|---|---|---|
| ACC | 140 | Payroll Accounting | 2 |
| ACC | 150 | Computerized Gen Ledger | 2 |
| BUS | 135 | Principles of Supervision | 3 |
| BUS | 147 | Business Insurance | 3 |
| BUS | 153 | Human Resource Mgmt. | 3 |
| BUS | 230 | Small Business Mgmt. | 3 |
| BUS | 239 | Bus Applications Sem | 2 |
| BUS | 252 | Labor Relations | 3 |
| BUS | 270 | Professional Development | 3 |
| CIS | 115 | Intro to Prog & Logic | 3 |
| CIS | 172 | Intro to the Internet | 3 |
| COE | - | Cooperative Education | 1-3 |
| MKT | 121 | Retailing | 3 |
| MKT | 123 | Fundamentals of Selling | 3 |
| OMT | 110 | Intro to Operations Management | 3 |

**Total Semester Credit Hours in Program** **74**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year

| *Prefix* | | | *Hours Credit* |
|---|---|---|---|
| **Fall Semester** | | | |
| ACA | 111 | | 1 |
| ACC | 120 | | 4 |
| BUS | 110 | | 3 |
| BUS | 121 | | 3 |
| ENG | 111 | | 3 |
| OST | 131 | | 2 |
| | | | 16 |
| **Spring Semester** | | | |
| ACC | 121 | | 4 |
| CIS | 110 | | 3 |
| ENG | 112 | Or | 3 |
| ENG | 113 | Or | (3) |
| ENG | 114 | | (3) |
| MAT | 140 | OR | 3 |
| MAT | 161 | | (3) |
| Humanities/Fine Arts | | | 3 |
| | | | 16 |
| **Summer Semester** | | | |
| CIS | 120 | | 3 |
| COM | 120 | | 3 |
| Major Elective | | | 3 |
| | | | 9 |

### Second Year

| *Prefix* | | | *Hours Credit* |
|---|---|---|---|
| **Fall Semester** | | | |
| BUS | 115 | | 3 |
| BUS | 137 | | 3 |
| BUS | 225 | | 3 |
| BUS | 260 | | 3 |
| ECO | 251 | | 3 |
| MKT | 120 | | 3 |
| | | | 18 |
| **Spring Semester** | | | |
| BUS | 116 | | 3 |
| ECO | 252 | | 3 |
| PSY | 118 | Or | 3 |
| PSY | 150 | Or | (3) |
| SOC | 210 | | (3) |
| Major Elective | | | 3 |
| Major Elective | | | 3 |
| | | | 15 |

# Business Administration - Operations Management Technology [A2512G]

## A.A.S. Degree

**Curriculum Description:**

Operations Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries.

Emphasized are analytical reasoning, problem solving, and continuous improvement concepts required in today's dynamic business and industry environments. Concepts include quality, productivity, organizational effectiveness, financial analysis, and the management of human, physical, and information resources.

Graduates should qualify for leadership positions or enhance their professional skills in supervision, team leadership, operations planning, quality assurance, manufacturing and service management, logistics/distribution, health and safety, human resources management, and inventory/materials management.

**Course and Hour Requirements**

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| ECO | 251 | Principles of Microeconomics | **3** | (3 | 0) |
| ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0) |
| MAT | 140 | Survey of Mathematics | **3** | (3 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| | **Total General Education Required Hours** | | **18** | **(18** | **0)** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0) |
| ACC | 120 | Principles of Accounting I | **4** | (3 | 2) |
| BUS | 110 | Introduction to Business | **3** | (3 | 0) |
| BUS | 115 | Business Law I | **3** | (3 | 0) |
| BUS | 121 | Business Math | **3** | (2 | 2) |
| BUS | 135 | Principles of Supervision | **3** | (3 | 0) |
| BUS | 137 | Principles of Management | **3** | (3 | 0) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| CIS | 120 | Spreadsheet I | **3** | (2 | 2) |
| ECO | 252 | Principles of Macroeconomics | **3** | (3 | 0) |
| ISC | 121 | Environmental Health & Safety | **3** | (3 | 0) |
| ISC | 131 | Quality Management | **3** | (3 | 0) |
| ISC | 210 | Production & Operations Planning | **3** | (3 | 0) |
| MKT | 120 | Principles of Marketing | **3** | (3 | 0) |
| OMT | 110 | Intro. to Operations Management | **3** | (3 | 0) |
| OMT | 112 | Material Management | **3** | (3 | 0) |
| OMT | 143 | Just-In-Time | **2** | (2 | 0) |
| OMT | 260 | Issues in Operations Management | **3** | (3 | 0) |
| - | - | Electives* | **3** | (3 | 0) |
| | **Total Major Required Hours** | | **55** | **(51** | **8)** |

***Approved Major Electives:**

| | |
|---|---|
| ACC 121 Principles of Accounting II | 4 |
| ACC 140 Payroll Accounting | 2 |
| ACC 150 Computerized General Ledger | 2 |
| BUS 252 Labor Relations | 3 |
| BUS 153 Human Resource Management | 3 |
| BUS 231 Computerized Inventory | 3 |
| BUS 239 Business Application Seminar | 2 |
| COE - Cooperative Education | 1-3 |
| MKT 121 Retailing | 3 |
| MKT 123 Fundamentals of Selling | 3 |
| MKT 125 Buying and Merchandising | 3 |
| MKT 220 Advertising and Sales Promotion | 3 |

**Total Semester Credit Hours in Program** **73**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year

| *Prefix* | *Hours Credit* |
|---|---|
| **Fall Semester** | |
| ACA 111 | 1 |
| ACC 120 | 4 |
| BUS 110 | 3 |
| BUS 115 | 3 |
| BUS 121 | 3 |
| ISC 121 | 3 |
| | 17 |
| **Spring Semester** | |
| CIS 110 | 3 |
| ENG 111 | 3 |
| MAT 140 | 3 |
| OMT 110 | 3 |
| Major Elective | 3 |
| | 15 |
| **Summer Semester** | |
| CIS 120 | 3 |
| ENG 114 | 3 |
| OMT 112 | 3 |
| | 9 |

### Second Year

| *Prefix* | *Hours Credit* |
|---|---|
| **Fall Semester** | |
| BUS 137 | 3 |
| COM 120 | 3 |
| ECO 251 | 3 |
| ISC 210 | 3 |
| MKT 120 | 3 |
| | 15 |
| **Spring Semester** | |
| BUS 135 | 3 |
| ECO 252 | 3 |
| ISC 131 | 3 |
| OMT 143 | 2 |
| OMT 260 | 3 |
| Humanities/Fine Arts | 3 |
| | 17 |

# COSMETOLOGY* [D55140]

## DIPLOMA PROGRAM

**Curriculum Description:**
The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and as skin/nail specialists, platform artists, and related businesses.

### Course and Hour Requirements

| Title | | | Credits | Hours Class | Lab | Clinical |
|---|---|---|---|---|---|---|
| **General Education Courses** | | | | | | |
| ENG | 102 | Applied Communication II | **3** | (3 | 0 | 0) |
| PSY | 118 | Interpersonal Psychology | **3** | (3 | 0 | 0) |
| | | **Total General Education Hours** | **6** | (6 | 0 | 0) |
| **Major Required Courses** | | | | | | |
| COS | 111 | Cosmetology Concepts I | **4** | (4 | 0 | 0) |
| COS | 112 | Salon I | **8** | (0 | 0 | 24) |
| COS | 113 | Cosmetology Concepts II | **4** | (4 | 0 | 0) |
| COS | 114 | Salon II | **8** | (0 | 0 | 24) |
| COS | 115 | Cosmetology Concepts III | **4** | (4 | 0 | 0) |
| COS | 116 | Salon III | **4** | (0 | 0 | 12) |
| COS | 120 | Esthetics | **2** | (1 | 3 | 0) |
| COS | 123 | Advanced Haircoloring | **2** | (1 | 3 | 0) |
| COS | 124 | Trichology & Chemistry | **2** | (1 | 3 | 0) |
| COS | 140 | Contemporary Design | **2** | (1 | 3 | 0) |
| COS | 160 | Design Applications | **2** | (1 | 3 | 0) |
| | | **Total Major Required Hours** | **42** | (17 | 15 | 60) |
| | | **Total Semester Credit Hours in Program** | **48** | | | |

## SUGGESTED CURRICULUM BY SEMESTER

| *Prefix* | | *Hours Credit* | *Prefix* | | *Hours Credit* |
|---|---|---|---|---|---|
| **Fall Semester** | | | **Spring Semester** | | |
| COS | 111 | 4 | COS | 113 | 4 |
| COS | 112 | 8 | COS | 114 | 8 |
| COS | 120 | 2 | COS | 123 | 2 |
| COS | 124 | 2 | COS | 140 | 2 |
| PSY | 118 | 3 | ENG | 102 | 3 |
| | | 19 | | | 19 |
| **Summer Semester** | | | | | |
| COS | 115 | 4 | | | |
| COS | 116 | 4 | | | |
| COS | 160 | 2 | | | |
| | | 10 | | | |

**The Cosmetology Program is taught on a contract basis by Hair Stylist Academy.*
**All COS courses are taught by and at the Hair Stylist Academy at 113 Water Street*

# Criminal Justice Technology [A55180]

## A.A.S. Degree

### Curriculum Description:

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.
Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.
Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

**Course and Hour Requirements**

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0) |
| MAT | 140 | Survey of Mathematics | **3** | (3 | 0) |
| POL | 130 | State and Local Government | **3** | (3 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| | **Total General Education Required Hours** | | **18** | **(18** | **0)** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0) |
| CIS | 110 | Introduction to Computers | **3** | (3 | 0) |
| CJC | 111 | Introduction to Criminal Justice | **3** | (3 | 0) |
| CJC | 112 | Criminology | **3** | (3 | 0) |
| CJC | 113 | Juvenile Justice | **3** | (3 | 0) |
| CJC | 121 | Law Enforcement Operations*** | **3** | (3 | 0) |
| CJC | 131 | Criminal Law** | **3** | (3 | 0) |
| CJC | 132 | Procedure and Evidence** | **3** | (3 | 0) |
| CJC | 141 | Corrections | **3** | (3 | 0) |
| CJC | 151 | Intro to Loss Prevention | **3** | (3 | 0) |
| CJC | 212 | Ethics and Community Relations | **3** | (3 | 0) |
| CJC | 215 | Organization & Administration | **3** | (3 | 0) |
| CJC | 221 | Investigative Principles** | **4** | (3 | 2) |
| CJC | 222 | Criminalistics | **3** | (3 | 0) |
| CJC | 225 | Crisis Intervention | **3** | (3 | 0) |
| CJC | 231 | Constitutional Law | **3** | (3 | 0) |
| CJC | 241 | Comm-Based Corrections | **3** | (3 | 0) |
| PSY | 150 | General Psychology | **3** | (3 | 0) |
| SOC | 210 | Introduction to Sociology | **3** | (3 | 0) |
| - | - | Major Elective* | **2** | (2 | 0) |
| | **Total Major Required Hours** | | **58** | **(57** | **2)** |

**** Approved Major Electives***

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HEA | 112 | First Aid & CPR | 2 | | | | |
| SOC | 220 | Social Problems | 3 | SPA | 111 | Elementary Spanish I | 3 |
| SOC | 225 | Social Diversity | 3 | COE | - | Cooperative Education | 1-2 |

**Total Semester Credit Hours in Program** **76**

***Any student who has completed the Basic Law Enforcement Training Program (BLET) can receive 10 SHC in the Criminal Justice Program through the courses designated.*
****BLET graduates may receive an additional 3 SHC through credit by exam for CJC 121.*

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| CJC | 111 | 3 |
| CJC | 112 | 3 |
| CJC | 131 | 3 |
| ENG | 111 | 3 |
| MAT | 140 | 3 |
| | | 16 |
| **Spring Semester** | | |
| CIS | 110 | 3 |
| CJC | 113 | 3 |
| CJC | 132 | 3 |
| CJC | 215 | 3 |
| ENG | 114 | 3 |
| POL | 130 | 3 |
| | | 18 |
| **Summer Semester** | | |
| CJC | 121 | 3 |
| CJC | 141 | 3 |
| CJC | 151 | 3 |
| | | 9 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| CJC | 212 | 3 |
| CJC | 221 | 4 |
| CJC | 225 | 3 |
| PSY | 150 | 3 |
| SOC | 210 | 3 |
| | | 16 |
| **Spring Semester** | | |
| CJC | 222 | 3 |
| CJC | 231 | 3 |
| CJC | 241 | 3 |
| COM | 120 | 3 |
| Major Elective | | 2 |
| Humanities/Fine Arts | | 3 |
| | | 17 |

Students to be asset at once

1 Guaranteed Slot

# DENTAL HYGIENE [A45260]

## A.A.S. DEGREE

### Curriculum Description:

The Dental Hygiene curriculum prepares individuals with the knowledge and skills to access, plan, implement, and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene, clean teeth, take x-rays, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and professional education.

*Mitchell Community College is offering the Dental Hygiene program in collaboration with four other community colleges in the Northwest Allied Health Project. This is a limited enrollment program with only the first year, being offered by MCC. The second year of the program must be completed at Catawba Valley Community College in Hickory, North Carolina. See the Director of Health Care programs or an admissions counselor for admissions information.*

### Course and Hour Requirements

### PHASE I

| Title | | | Credit | Class | Lab | Clinic |
|---|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | | |
| CHM | 130 | General , Organic & Biochemistry | 3 | (3 | 0 | 0) |
| CHM | 130A | General, Organic & Biochemistry Lab | 1 | (0 | 2 | 0) |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0 | 0) |
| ENG | 111 | Expository Writing | 3 | (3 | 0 | 0) |
| ENG | 114 | Professional Research & Reporting | 3 | (3 | 0 | 0) |
| PSY | 150 | General Psychology | 3 | (3 | 0 | 0) |
| SOC | 210 | Intro to Sociology | 3 | (3 | 0 | 0) |
| | | **Total General Education Required Hours** | **19** | **(18** | **2** | **0)** |
| **Major Required Courses** | | | | | | |
| BIO | 163 | Basic Anatomy & Physiology | 5 | (4 | 2 | 0) |
| BIO | 175 | General Microbiology or BIO 275 | 3 | (2 | 2 | 0) |
| CIS | 110 | Intro. To Computers | 3 | (2 | 2 | 0) |
| | | **Total Major Required Hours** | **11** | **(8** | **(6** | **0)** |

### PHASE II

*Phase I must be completed with a grade of "C" or better on all courses in order to continue with Phase II.*

| **Major Required Courses** | | | | | | |
|---|---|---|---|---|---|---|
| DEN | 110 | Orofacial Anatomy | 3 | (2 | 2 | 0) |
| DEN | 111 | Infection/Hazard Control | 2 | (2 | 0 | 0) |
| DEN | 112 | Dental Radiography | 3 | (2 | 3 | 0) |
| DEN | 120 | Dental Hygiene Preclinic Lecture | 2 | (2 | 0 | 0) |
| DEN | 121 | Dental Hygiene Preclinic Laboratory | 2 | (0 | 6 | 0) |
| DEN | 123 | Nutrition/Dental Health | 2 | (2 | 0 | 0) |
| DEN | 124 | Periodontology | 2 | (2 | 0 | 0) |
| DEN | 130 | Dental Hygiene Theory I | 2 | (2 | 0 | 0) |

| | | | | | | |
|---|---|---|---|---|---|---|
| DEN | 131 | Dental Hygiene Clinic I | 3 | (0 | 0 | 9) |
| DEN | 140 | Dental Hygiene Theory II | 1 | (1 | 0 | 0) |
| DEN | 141 | Dental Hygiene Clinic II | 2 | (0 | 0 | 6) |
| DEN | 220 | Dental Hygiene Theory III | 2 | (2 | 0 | 0) |
| DEN | 221 | Dental Hygiene Clinic III | 4 | (0 | 0 | 12) |
| DEN | 222 | General & Oral Pathology | 2 | (2 | 0 | 0) |
| DEN | 223 | Dental & Oral Pathology | 2 | (2 | 0 | 0) |
| DEN | 224 | Material and Procedures | 2 | (1 | 3 | 0) |
| DEN | 230 | Dental Hygiene Theory IV | 1 | (1 | 0 | 0) |
| DEN | 231 | Dental Hygiene Clinic IV | 4 | (0 | 0 | 12) |
| DEN | 232 | Community Dental Health | 3 | (2 | 0 | 0) |
| DEN | 233 | Professional Development | 2 | (2 | 0 | 0) |
| | **Total Major Required Courses** | | **46** | **(27** | **14** | **39)** |

**Total Semester Credit Hours in Program** **76**

## Suggested Curriculum by Semesters

### First Year

**Summer Semester (MCC)**

| | | |
|---|---|---|
| BIO | 175 OR | 3 |
| BIO | 275 | (4) |
| ENG | 111 | 3 |
| CHM | 130 | 3 |
| CHM | 130A | 1 |
| SOC | 210 | 3 |
| | | 13(14) |

**Fall Semester (MCC)**

| | | |
|---|---|---|
| BIO | 163 | 5 |
| CIS | 110 | 3 |
| COM | 120 | 3 |
| ENG | 114 | 3 |
| PSY | 150 | 3 |
| | | 17 |

**Spring Semester (CVCC)**

| | | |
|---|---|---|
| DEN | 110 | 3 |
| DEN | 111 | 2 |
| DEN | 112 | 3 |
| DEN | 120 | 2 |
| DEN | 121 | 2 |
| | | 12 |

### Second Year

**Summer Semester (CVCC)**

| | | |
|---|---|---|
| DEN | 130 | 2 |
| DEN | 131 | 3 |
| DEN | 124 | 2 |
| DEN | 123 | 2 |
| | | 9 |

**Fall Semester (CVCC)**

| | | |
|---|---|---|
| DEN | 140 | 1 |
| DEN | 141 | 2 |
| DEN | 222 | 2 |
| DEN | 223 | 2 |
| DEN | 224 | 2 |
| DEN | 232 | 3 |
| | | 12 |

**Spring Semester (CVCC)**

| | | |
|---|---|---|
| DEN | 220 | 2 |
| DEN | 221 | 4 |
| DEN | 230 | 1 |
| DEN | 231 | 4 |
| DEN | 233 | 2 |
| | | 13 |

Night Program

# EARLY CHILDHOOD ASSOCIATE [A55220]

## A.A.S. DEGREE

**Curriculum Description:**

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

### Course and Hour Requirements

| | Title | | | Credit | Class | Lab |
|---|---|---|---|---|---|---|
| **I.** | **General Education Courses** | | | | | |
| * | COM | 120 | Interpersonal Communication | 3 | (3 | 0) |
| * | ENG | 111 | Expository Writing | 3 | (3 | 0) |
| | ENG | 114 | Prof Research & Reporting | 3 | (3 | 0) |
| | PSY | 150 | General Psychology | 3 | (3 | 0) |
| | MAT | 140 | Survey of Mathematics | 3 | (3 | 0) |
| | - | - | Humanities/Fine Arts Elective | 3 | (3 | 0) |
| | | | | 18 | (18 | 0) |
| **II.** | **Major Hours Required** | | | | | |
| * | ACA | 111 | College Success Skills | 1 | (1 | 0) |
| * | COE | 111 | Co-Op Work Experience I | 1 | (0 | 10) |
| * | EDU | 131 | Children, Family & Community | 3 | (3 | 0) |
| * | EDU | 146 | Child Guidance | 3 | (3 | 0) |
| * | EDU | 221 | Children with Special Needs | 3 | (3 | 0) |
| * | EDU | 111 | Early Childhood Cred I | 2 | (2 | 0) |
| * | EDU | 112 | Early Childhood Cred II | 2 | (2 | 0) |
| * | EDU | 144 | Child Development I | 3 | (3 | 0) |
| * | EDU | 145 | Child Development II | 3 | (3 | 0) |
| | CIS | 110 | Introduction to Computers | 3 | (2 | 2) |
| | COE | 115 | Work Experience Seminar I | 1 | (1 | 0) |
| | COE | 122 | Co-Op Work Experience II | 2 | (0 | 20) |
| * | EDU | 151 | Creative Activities | 3 | (3 | 0) |
| * | EDU | 151A | Creative Activities Lab | 1 | (0 | 2) |
| | EDU | 152 | Music, Movement & Lang | 3 | (3 | 0) |
| | EDU | 152A | Music, Movement & Lang Lab | 1 | (0 | 2) |
| * | EDU | 153 | Health, Safety & Nutrition | 3 | (3 | 0) |
| * | EDU | 153A | Health, Safety & Nutrition Lab | 1 | (0 | 2) |
| * | EDU | 252 | Math and Science Activities | 3 | (3 | 0) |
| * | EDU | 252A | Math and Science Activities Lab | 1 | (0 | 2) |
| | EDU | 259 | Curriculum Planning | 3 | (3 | 0) |
| * | EDU | 282 | Early Childhood Lit | 3 | (3 | 0) |
| | SOC | 213 | Sociology of the Family | 3 | (3 | 0) |
| | - | - | Major Elective | 2 | (2 | 0) |
| | | | *(to be selected from the following)* | 54 | (46 | 40) |

*Approved Major Electives:*

| | | | |
|---|---|---|---|
| BUS | 230 | Small Business Management | 3 |
| EDU | 234 | Infants, Toddlers & Twos | 3 |
| EDU | 261 | Early Childhood Administration I | 2 |
| EDU | 262 | Early Childhood Administration II | 3 |
| EDU | 288 | Advanced Issues in Early Childhood | 2 |

**IV. Total Semester Hours Credit in Program** **72**

***Total Semester Hours Credit for Diploma** **42**

*Students who test into two or more developmental areas are required to take ACA 111. Others are exzempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year

**Fall Semester**

| | | |
|---|---|---|
| ACA | 111 | 1 |
| EDU | 111 | 2 |
| EDU | 144 | 3 |
| EDU | 153 | 3 |
| EDU | 153A | 1 |
| ENG | 111 | 3 |
| MAT | 140 | 3 |
| | | 16 |

**Spring Semester**

| | | |
|---|---|---|
| CIS | 110 | 3 |
| COE | 111 | 1 |
| COE | 115 | 1 |
| EDU | 112 | 2 |
| EDU | 145 | 3 |
| EDU | 146 | 3 |
| ENG | 114 | 3 |
| | | 16 |

**Summer Semester**

| | | |
|---|---|---|
| COM | 120 | 3 |
| EDU | 131 | 3 |
| SOC | 213 | 3 |
| | | 9 |

### Second Year

**Fall Semester**

| | | |
|---|---|---|
| EDU | 151 | 3 |
| EDU | 151A | 1 |
| EDU | 152 | 3 |
| EDU | 152A | 1 |
| EDU | 221 | 3 |
| PSY | 150 | 3 |
| Major Elective | | 2 |
| | | 16 |

**Spring Semester**

| | | |
|---|---|---|
| COE | 122 | 2 |
| EDU | 252 | 3 |
| EDU | 252A | 1 |
| EDU | 259 | 3 |
| EDU | 282 | 3 |
| Humanities/Fine Arts | | 3 |
| | | 15 |

# Electric Lineman Technology [A35210]

## A.A.S. Degree

**Curriculum Description:**
The Electric Lineman Technology curriculum prepares individuals to work as lineman in the preparation and repair of rural electrical utility service. Students will combine electrical theory with laboratory and practical applications in the course of study.

Students will be expected to master competencies such as those included in elements of electricity; overhead pole and electrical line construction, safety codes and applications, electric power system, transformer and meter installations, and exploration of underground electrical distribution.

Upon successful completion of the program, individuals will receive the Associate in Applied Science degree and will possess the necessary skills for employment in the dynamic electrical utility field.

Entrance into the program is restricted to those individuals approved by the Department of Labor Apprenticeship Program. Students may enroll in the required general education or non-apprentice courses while awaiting entrance approval.

This program is offered in collaboration with Nash Community College in Rocky Mount, North Carolina, with the degree for completion being awarded by Nash. The following list will give which courses can be taken at Mitchell Community College and which must be taken at Nash Community College.

### Course and Hour Requirements

| Title | | | Credit | Class | Lab | Exp. |
|---|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | | |
| ENG | 111 | Expository Writing | 3 | (3 | 0 | 0) |
| MAT | 121 | Algebra & Trigonometry I | 3 | (2 | 2 | 0) |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0 | 0) |
| HUM | 115 | Critical Thinking | 3 | (3 | 0 | 0) |
| PSY | 118 | Interpersonal Psychology | 3 | (3 | 0 | 0) |
| **Total General Education Required Hours** | | | **15** | | | |
| **Major Required Courses** | | | | | | |
| **ACA | 111 | College Student Success | 1 | (1 | 0 | 0) |
| CIS | 110 | Intro to Computers | 3 | (2 | 2 | 0) |
| *COE | 114 | Cooperative Work Experience I | 4 | (0 | 0 | 40) |
| *COE | 124 | Cooperative Work Experience II | 4 | (0 | 0 | 40) |
| ELC | 111 | Intro to Electricity | 3 | (2 | 2 | 0) |
| * ELC | 126 | Electrical Computations | 3 | (2 | 2 | 0) |
| * ELC | 229 | Applications Project | 2 | (1 | 3 | 0) |
| ELC | 231 | Electric Power Systems | 4 | (3 | 2 | 0) |
| ELC | 233 | Energy Management | 3 | (2 | 2 | 0) |
| *ELC | 234 | Electrical System Design | 2 | (1 | 3 | 0) |
| *ELT | 111 | Intro to Electric Lineman | 2 | (2 | 0 | 0) |
| ELT | 112 | National Electrical Safety Code | 3 | (2 | 2 | 0) |
| *ELT | 114 | Overhead Line Construction I | 2 | (1 | 2 | 0) |
| *ELT | 115 | Overhead Line Construction II | 2 | (2 | 0 | 0) |
| *ELT | 116 | Overhead Line Construction III | 2 | (2 | 0 | 0) |
| *ELT | 117 | Overhead Line Construction IV | 2 | (2 | 0 | 0) |
| *ELT | 211 | Underground Line Construction I | 2 | (2 | 0 | 0) |
| *ELT | 212 | Underground Line Construction II | 2 | (2 | 0 | 0) |
| *ELT | 221 | Advanced Line Construction | 2 | (2 | 0 | 0) |
| HEA | 112 | First Aid & CPR | 2 | (1 | 2 | 0) |
| **Total Major Required Hours** | | | **50** | | | |
| **Total Semester Credit Hours in Program** | | | **64-65** | | | |

** These courses will be taught at Nash Community College*
***Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters
## Phase I
## (Mitchell Community College)

| Fall Semester | | |
|---|---|---|
| ACA | 111 | 1 |
| ENG | 111 | 3 |
| ELC | 111 | 3 |
| MAT | 121 | 3 |
| PSY | 118 | 3 |
| | | 13 |

| Spring Semester | | |
|---|---|---|
| COM | 120 | 3 |
| ELC | 231 | 4 |
| ELT | 112 | 3 |
| HEA | 112 | 2 |
| HUM | 115 | 3 |
| | | 15 |

| Summer Semester | | |
|---|---|---|
| ELC | 233 | 3 |
| CIS | 110 | 3 |
| | | 6 |

## Phase II
## (Nash Community College)

| | | |
|---|---|---|
| COE | 114 | 4 |
| COE | 124 | 4 |
| ELC | 126 | 3 |
| ELC | 229 | 2 |
| ELC | 234 | 2 |
| ELT | 111 | 2 |
| ELT | 114 | 2 |
| ELT | 115 | 2 |
| ELT | 116 | 2 |
| ELT | 117 | 2 |
| ELT | 211 | 2 |
| ELT | 212 | 2 |
| ELT | 221 | 2 |

# ELECTRICAL/ELECTRONICS TECHNOLOGY [A35220]

## A.A.S. DEGREE

### Curriculum Description:

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, Basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Courses** | | | | | |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0) |
| *ENG | 111 | Expository Writing | 3 | (3 | 0) |
| *MAT | 121 | Algebra/Trigonometry I | 3 | (2 | 2) |
| - | - | Humanities/Fine Arts Elective | 3 | (3 | 0) |
| - | - | Social/Behavioral Science Elective | 3 | (3 | 0) |
| | | **Total General Education Required Hours** | **15** | **(14** | **2)** |
| **Major Required Courses** | | | | | |
| *ACA | 111 | College Student Success | 1 | (1 | 0) |
| *ELC | 112 | DC/AC Electricity | 5 | (3 | 6) |
| *ELC | 113 | Basic Wiring I | 4 | (2 | 6) |
| ELC | 114 | Basic Wiring II | 4 | (2 | 6) |
| *ELC | 115 | Industrial Wiring | 4 | (2 | 6) |
| *ELC | 117 | Motors and Controls | 4 | (2 | 6) |
| *ELC | 119 | NEC Calculations | 2 | (1 | 2) |
| *ELC | 125 | Diagrams & Schematics | 2 | (1 | 2) |
| *ELC | 126 | Electrical Computations | 3 | (2 | 2) |
| *ELC | 127 | Software for Technicians | 2 | (1 | 2) |
| *ELC | 128 | Introduction to PLC | 3 | (2 | 3) |
| ELC | 132 | Electrical Drawings | 2 | (1 | 3) |
| ELC | 215 | Electrical Maintenance | 3 | (2 | 3) |
| ELC | 228 | PLC Applications | 4 | (2 | 6) |
| ELC | 229 | Application Project | 2 | (1 | 3) |
| *ELN | 229 | Industrial Electronics | 4 | (2 | 4) |
| ELN | 131 | Electronic Devices | 4 | (3 | 3) |
| ELN | 133 | Digital Electronics | 4 | (3 | 3) |
| - | - | Major Elective | 3 | (3 | 0) |
| | | **Total Major Required Hours** | **60** | **(36** | **66)** |

*Approved Electives:*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ELC | 118 | National Electrical Code | 2 | ELN | 152 | Fabrication Techniques | 2 |
| ELC | 121 | Electrical Estimating | 2 | ELN | 231 | Industrial Controls | 3 |
| ELC | 131 | DC/AC Circuit Analysis | 5 | HYD | 110 | Hydraulics/Pneumatics | 3 |
| ELC | 133 | Adv Circuit Analysis | 3 | ISC | 112 | Industrial Safety | 2 |
| ELN | 135 | Electronic Circuits | 3 | COE | - | Cooperative Education | 1-3 |

**Total Semester Credit Hours in Program** **75**

*Courses required for the diploma. Credit hours required for diploma - 40.

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Certificate Options

## Basic Wiring Certificate

| | | Title | Credit | Class | Lab |
|---|---|---|---|---|---|
| ELC | 112 | DC/AC Electricity | 5 | (3 | 6) |
| ELC | 113 | Basic Wiring I | 4 | (2 | 6) |
| ELC | 114 | Basic Wiring II | 4 | (2 | 6) |
| ELC | 126 | Electrical Computations | 3 | (2 | 2) |
| | | **Total Hours for Certificate** | **16** | **(9** | **20)** |

## Industrial Wiring Certificate

| | | | | | |
|---|---|---|---|---|---|
| ELC | 112 | DC/AC Electricity | 5 | (3 | 6) |
| ELC | 115 | Industiral Wiring | 4 | (2 | 6) |
| ELC | 119 | NEC Calculations | 2 | (1 | 2) |
| ELC | 126 | Electrical Computations | 3 | (2 | 2) |
| | | **Total Hours for Certificate** | **14** | **(8** | **16)** |

## Motor Certificate

| | | | | | |
|---|---|---|---|---|---|
| ELC | 112 | DC/AC Electricity | 5 | (3 | 6) |
| ELC | 117 | Motors and Controls | 4 | (2 | 6) |
| ELC | 126 | Electrical Computations | 3 | (2 | 2) |
| | | **Total Hours for Certificate** | **12** | **(7** | **14)** |

## PLC Certificate

| | | | | | |
|---|---|---|---|---|---|
| ELC | 126 | Electrical Computation | 3 | (2 | 2) |
| ELC | 127 | Software for Technicians | 2 | (1 | 2) |
| ELC | 128 | Introduction to PLC | 3 | (2 | 3) |
| ELC | 228 | PLC Application | 4 | (2 | 6) |
| | | **Total Hours for Certificate** | **12** | **(7** | **13)** |

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| ELC | 112 | 5 |
| ELC | 126 | 3 |
| ELC | 127 | 2 |
| ELC | 128 | 3 |
| MAT | 121 | 3 |
| | | 17 |
| **Spring Semester** | | |
| ELC | 117 | 4 |
| ELC | 119 | 2 |
| ELC | 125 | 2 |
| ELN | 131 | 4 |
| ENG | 111 | 3 |
| | | 15 |
| **Summer Semester** | | |
| ELC | 113 | 4 |
| ELN | 229 | 4 |
| Major Elective | | 3 |
| | | 11 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| COM | 120 | 3 |
| ELC | 114 | 4 |
| ELC | 132 | 2 |
| ELC | 228 | 4 |
| ELC | 229 | 2 |
| | | 15 |
| | | 16 |
| **Spring Semester** | | |
| ELC | 115 | 4 |
| ELC | 215 | 3 |
| ELN | 133 | 4 |
| ~~Humanities/Fine Arts~~ | | 3 |
| Social Science | | 3 |
| | | 17 |

# Electronics Engineering Technology [A40200]

## A.A.S. Degree Program

**Curriculum Description:**

The Electronic Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, fieldservice technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

### Course and Hour Requirements

| Title | | Credits | Hours Class | Lab |
|---|---|---|---|---|
| **General Education Required Courses** | | | | |
| *ENG 111 | Expository Writing | 3 | (3 | 0) |
| COM 120 | Interpersonal Communication | 3 | (3 | 0) |
| *MAT 121 | Algebra/Trigonometry I | 3 | (2 | 2) |
| - - | Humanities/Fine Arts Elective | 3 | (3 | 0) |
| - - | Social/Behavioral Science | 3 | (3 | 0) |
| | | **15** | **14** | **2)** |
| **Major Courses** | | | | |
| *ACA 111 | College Student Success | 1 | (1 | 0) |
| * ELC 131 | DC/AC Circuit Analysis | 5 | (4 | 3) |
| * ELC 127 | Software for Technicians | 2 | (1 | 2) |
| * ELC 128 | Introduction to PLC | 3 | (2 | 3) |
| ELC 228 | PLC Applications | 4 | (2 | 6) |
| *ELN 131 | Electronic Devices | 4 | (3 | 3) |
| * ELN 132 | Linear IC Applications | 4 | (3 | 3) |
| * ELN 133 | Digital Electronics | 4 | (3 | 3) |
| * ELN 152 | Fabrication Techniques | 2 | (1 | 3) |
| ELN 229 | Industrial Electronics | 4 | (2 | 4) |
| ELN 231 | Industrial Controls | 3 | (2 | 3) |
| * ELN 232 | Introduction to Microprocessors | 4 | (3 | 3) |
| ELN 234 | Communication systems | 4 | (2 | 3) |
| ELN 236 | Fiber Optics and Lasers | 4 | (3 | 2) |
| ELN 275 | Troubleshooting | 2 | (1 | 2) |
| MAT 122 | Algebra/Trigonometry II | 3 | (2 | 2) |
| PHY 131 | Physics-Mechanics | 4 | (3 | 2) |
| * - - | Major Elective | 3 | (3 | 0) |
| **Total Major Required Semester Hours** | | **60** | **41** | **48** |

Approved Electives:

| | | | | | |
|---|---|---|---|---|---|
| ELC | 113 | Basic Wiring I (4) | ELN | 260 | Prog. Logic Controllers (4) |
| ELC | 117 | Motors & Controls (4) | HYD | 110 | Hydraulics/Pneumatics (3) |
| ELC | 135 | Electrical Machines I (3) | COE | | Cooperative Education (1-3) |
| ELN | 135 | Electronic Circuits (3) | | | |

**Total Semester Credit Hours in Program** **75**

***Courses required for the diploma. Credit hours required for diploma: 38**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| ELC | 127 | 2 |
| ELC | 128 | 3 |
| ELC | 131 | 5 |
| ENG | 111 | 3 |
| MAT | 121 | 3 |
| | | 17 |
| **Spring Semester** | | |
| COM | 120 | 3 |
| ELN | 131 | 4 |
| ELN | 133 | 4 |
| ELN | 152 | 2 |
| MAT | 122 | 3 |
| | | 16 |
| **Summer Semester** | | |
| ELN | 132 | 4 |
| ELN | 229 | 4 |
| PHY | 131 | 4 |
| | | 12 |

### Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ELC | 228 | 4 |
| ELN | 232 | 4 |
| ELN | 234 | 4 |
| Social/Behavioral Science Elec. | | 3 |
| | | 15 |
| **Spring Semester** | | |
| ELN | 231 | 3 |
| ELN | 236 | 4 |
| ELN | 275 | 2 |
| Humanities/Fine Arts | | 3 |
| Major Elective | | 3 |
| | | 15 |

## Certificate Options

### Programmable Logic Controller Certificate

| **Title** | | | **Credit** | **Class** | **Lab** |
|---|---|---|---|---|---|
| ELC | 127 | Software for Technicians | **2** | (1 | 2) |
| ELC | 128 | Introduction to PLC | **3** | (2 | 3) |
| ELC | 131 | DC/AC Circuit Analysis | **5** | (4 | 3) |
| ELC | 228 | PLC Application | **4** | (2 | 6) |
| | | **Total Hours for Certificate** | **14** | **(9** | **14)** |

### Electronic Devices Certificate

| | | | | | |
|---|---|---|---|---|---|
| ELC | 127 | Software for Technicians | **2** | (1 | 2) |
| ELC | 131 | DC/AC Circuit Analysis | **5** | (4 | 3) |
| ELN | 131 | Electronic Devices | **4** | (3 | 3) |
| ELN | 132 | Linear IC Application | **4** | (3 | 3) |
| | | **Total Hours for Certificate** | **15** | **(11** | **11)** |

### Digital Microprocessors Certificate

| | | | | | |
|---|---|---|---|---|---|
| ELC | 127 | Software for Technicians | **2** | (1 | 2) |
| ELC | 131 | DC/AC Circuit Analysis | **5** | (4 | 3) |
| ELN | 133 | Digital Electronics | **4** | (3 | 3) |
| ELN | 232 | Intro to Microporcessors | **4** | (3 | 3) |
| | | **Total Hours for Certificate** | **15** | **(11** | **11)** |

### Communication Certificate

| | | | | | |
|---|---|---|---|---|---|
| ELC | 131 | DC/AC Circuit Analysis | **5** | (4 | 3) |
| ELN | 131 | Electronic Devices | **4** | (3 | 3) |
| ELN | 132 | Linear IC Application | **4** | (3 | 3) |
| ELN | 234 | Communication Systems | **4** | (3 | 3) |
| | | **Total Hours for Certificate** | **17** | **(13** | **12)** |

# HEALTHCARE MANAGEMENT TECHNOLOGY [A25200]

## A.A.S. DEGREE

**Curriculum Description:**

The Healthcare Management Technology curriculum is designed to prepare students for employment in healthcare business and financial operations. Students will gain a comprehensive understanding of the application of management principles to the healthcare environment.

The curriculum places emphasis on planning, organizing, directing, and controlling tasks related to healthcare organizational objectives including the legal and ethical environment. Emphasis is placed on the development of effective communication, managerial, and supervisory skills.

Graduates may find employment in healthcare settings including hospitals, medical offices, clinics, long-term care facilities, and insurance companies. Graduates are eligible to sit for the Certified Patient Account Manager (COAM) and the Certified Manager of Patient Accounts (CMPA).

*The Healthcare Management Technology program is a cooperative educational program offered by Catawba Valley Community College and Mitchell Community College. All courses required in the program are available on each local campus. All HMT and MED prefix courses will be taught by CVCC and delivered by interactive distance learning on our Statesville campus utilizing the Information Highway classroom.*

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab | Clinical |
|---|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | | |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0 | 0) |
| ENG | 111 | Expository Writing | 3 | (3 | 0 | 0) |
| ENG | 114 | Prof. Research & Reporting | 3 | (3 | 0 | 0) |
| MAT | 110 | Mathematical Measurements OR | 3 | (3 | 0 | 0) |
| MAT | 140 | Survey of Mathematics | [3 | (3 | 0 | 0)] |
| - | - | Social Behavioral Science | 3 | (3 | 0 | 0) |
| | | **Total General Education Required Hours** | **15** | **(15** | **0** | **0)** |
| **Major Required Courses** | | | | | | |
| ACA | 111 | College Student Success | 1 | (1 | 0 | 0) |
| ACC | 120 | Principles of Accounting I | 4 | (3 | 2 | 0) |
| ACC | 121 | Principles of Accounting II | 4 | (3 | 2 | 0) |
| ACC | 225 | Cost Accounting | 3 | (3 | 0 | 0) |
| BUS | 110 | Introduction to Business | 3 | (3 | 0 | 0) |
| BUS | 135 | Principles of Supervision | 3 | (3 | 0 | 0) |
| BUS | 137 | Principles of Management | 3 | (3 | 0 | 0) |
| BUS | 260 | Business Communications | 3 | (3 | 0 | 0) |
| CIS | 110 | Introduction to Computers | 3 | (2 | 2 | 0) |
| COE | 112 | Co-Op Work Experience | 2 | (0 | 0 | 20) |
| HMT | 110 | Intro to Healthcare Management | 3 | (3 | 0 | 0) |
| HMT | 210 | Medical Insurance | 3 | (3 | 0 | 0) |
| HMT | 211 | Long-Term Care Administration | 3 | (3 | 0 | 0) |
| HMT | 212 | Mgmt. of Healthcare Organizations | 2 | (2 | 0 | 0) |
| HMT | 220 | Healthcare Financial Management | 4 | (4 | 0 | 0) |
| MED | 118 | Medical Law & Ethics | 2 | (2 | 0 | 0) |
| MED | 121 | Medical Terminology I | 3 | (3 | 0 | 0) |
| MED | 122 | Medical Terminology II | 3 | (3 | 0 | 0) |
| MKT | 120 | Principles of Marketing | 3 | (3 | 0 | 0) |
| - | - | Elective | 3 | (3 | 0 | 0) |
| | | **Total Major Required Hours** | **58** | **(53** | **6** | **20)** |
| **Total Semester Credit Hours in Program** | | | **73** | | | |

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| BUS | 110 | 3 |
| BUS | 137 | 3 |
| CIS | 110 | 3 |
| ENG | 111 | 3 |
| MAT | 140 or 110 | 3 |
| *MED | 118 | 2 |
| | | 18 |
| **Spring Semester** | | |
| ACC | 120 | 4 |
| ENG | 114 | 3 |
| *HMT | 110 | 3 |
| *MED | 121 | 3 |
| *MED | 122 | 3 |
| | | 16 |
| **Summer** | | **Semester** |
| ACC | 121 | 4 |
| COM | 120 | 3 |
| Elective | | 3 |
| | | 10 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACC | 225 | 3 |
| BUS | 260 | 3 |
| *HMT | 210 | 3 |
| *HMT | 211 | 3 |
| *MKT | 120 | 3 |
| | | 15 |
| **Spring Semester** | | |
| BUS | 135 | 3 |
| COE | 112 | 2 |
| *HMT | 212 | 2 |
| *HMT | 220 | 4 |
| Social/Behavioral Science | | 3 |
| | | 14 |

**These courses are offered by CVCC at MCC over the NCIH. CVCC will award the degree.*

# Human Services Technology [A45380]

## A.A.S. Degree

**Curriculum Description:**

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies which provide social, community, and educational services. Along with core courses, students take courses which prepare them for specialization in specific human service areas.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, child care, family services, social services, rehabilitation, correction, and educational agencies. Graduates choosing to continue their education may select from a variety of transfer programs at senior public and private institutions.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab | Clinical |
|---|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0 | 0) |
| ENG | 111 | Expository Writing | **3** | (3 | 0 | 0) |
| ENG | 114 | Pro. Research & Reporting | **3** | (3 | 0 | 0) |
| BIO | 111 | General Biology I Or | **4** | (3 | 3 | 0) |
| MAT | 140 | Survey of Mathematics Or | **[3** | (3 | 0 | 0)] |
| MAT | 161 | College Algebra | **[3** | (3 | 0 | 0)] |
| PSY | 241 | Developmental Psychology | **3** | (3 | 0 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0 | 0) |
| | **Total General Education Required Hours** | | **18-19** | **(18** | **3** | **0)** |
| **Major Required Courses** | | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0 | 0) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2 | 0) |
| DDT | 110 | Developmental Disabilities | **3** | (3 | 0 | 0) |
| GRO | 120 | Gerontology | **3** | (3 | 0 | 0) |
| HSE | 110 | Intro. to Human Services | **3** | (2 | 2 | 0) |
| HSE | 112 | Group Process I | **2** | (1 | 2 | 0) |
| HSE | 123 | Interviewing Techniques | **3** | (2 | 2 | 0) |
| HSE | 125 | Counseling | **3** | (2 | 2 | 0) |
| HSE | 160 | HSE Clinical Supervision I | **1** | (1 | 0 | 0) |
| HSE | 163 | HSE Clinical Experience I | **3** | (0 | 0 | 9) |
| HSE | 210 | Human Services Issues | **2** | (2 | 0 | 0) |
| HSE | 212 | Group Process II | **2** | (1 | 2 | 0) |
| HSE | 215 | Health Care | **5** | (3 | 2 | 3) |
| HSE | 225 | Crisis Intervention | **3** | (3 | 0 | 0) |
| HSE | 260 | HSE Clinical Supervision II | **1** | (1 | 0 | 0) |
| HSE | 264 | HSE Clinical Experience II | **4** | (0 | 0 | 12) |
| PSY | 150 | General Psychology | **3** | (3 | 0 | 0) |
| PSY | 281 | Abnormal Psychology | **3** | (3 | 0 | 0) |
| SAB | 130 | Addictive Behaviors | **3** | (3 | 0 | 0) |
| SOC | 213 | Sociology of the Family | **3** | (3 | 0 | 0) |
| SOC | 220 | Social Problems | **3** | (3 | 0 | 0) |
| | **Total Major Required Hours** | | **57** | **(42** | **14** | **24)** |

**Total Semester Credit Hours in Program** **75-76**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | | *Hours Credit* |
|---|---|---|---|
| **Fall Semester** | | | |
| ACA | 111 | | 1 |
| COM | 120 | | 3 |
| ENG | 111 | | 3 |
| HSE | 110 | | 3 |
| HSE | 112 | | 2 |
| PSY | 150 | | 3 |
| | | | 15 |
| **Spring Semester** | | | |
| BIO | 111 | or | 4 |
| MAT | 140 | or | (3) |
| MAT | 161 | | (3) |
| HSE | 125 | | 3 |
| HSE | 212 | | 2 |
| HSE | 225 | | 3 |
| PSY | 241 | | 3 |
| SOC | 220 | | 3 |
| | | | 17/18 |
| **Summer Semester** | | | |
| CIS | 110 | | 3 |
| HSE | 215 | | 5 |
| PSY | 281 | | 3 |
| | | | 11 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| DDT | 110 | 3 |
| ENG | 114 | 3 |
| GRO | 100 | 3 |
| HSE | 123 | 3 |
| HSE | 160 | 1 |
| HSE | 163 | 3 |
| | | 16 |
| **Spring Semester** | | |
| HSE | 210 | 2 |
| HSE | 260 | 1 |
| HSE | 264 | 4 |
| Humanities/Fine Arts | | 3 |
| SAB | 130 | 3 |
| SOC | 213 | 3 |
| | | 16 |

# Industrial Maintenance Technology [A50240]

## A.A.S. Degree

**Curriculum Description:**

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Courses** | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| *ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research and Reporting | **3** | (3 | 0) |
| *MAT | 121 | Algebra/Trigonometry I | **3** | (2 | 2) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| - | - | Social/Behavioral Science Elective | **3** | (3 | 0) |
| | **Total General Education Required Hours** | | **18** | **(17** | **2)** |
| **Major Required Courses** | | | | | |
| *ACA | 111 | College Student Success | **1** | (1 | 0) |
| AHR | 120 | HVACR Maintenance | **2** | (1 | 3) |
| *BPR | 111 | Blueprint Reading | **2** | (1 | 2) |
| *BPR | 121 | Blueprint Reading Mechanical | **2** | (1 | 2) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| DFT | 119 | Basic CAD | **2** | (1 | 2) |
| *ELC | 128 | Intro to PLC | **3** | (2 | 3) |
| *ELC | 131 | DC/AC Circuit Analysis | **5** | (4 | 3) |
| *ELN | 231 | Industrial Controls | **3** | (2 | 3) |
| *HYD | 110 | Hydraulics/Pneumatics | **3** | (2 | 3) |
| *ISC | 112 | Industrial Safety | **2** | (2 | 0) |
| MAC | 121 | Intro to CNC | **2** | (2 | 0) |
| *MEC | 111 | Machine Processes I | **3** | (2 | 3) |
| MEC | 112 | Machine Processes II | **3** | (2 | 3) |
| *MEC | 160 | Mechanical Industrial Systems | **2** | (1 | 3) |
| MEC | 210 | Materials-Stress Analysis | **2** | (1 | 2) |
| *MNT | 110 | Introduction to Maintenance Procedures | **2** | (1 | 3) |
| *MNT | 111 | Maintenance Practices | **2** | (1 | 3) |
| MNT | 220 | Rigging & Moving | **2** | (1 | 3) |
| *MNT | 230 | Pumps & Piping Systems | **2** | (1 | 3) |
| *WLD | 112 | Basic Welding Processes | **2** | (1 | 3) |
| * | - - | **Elective | **3** | (3 | 0) |
| | | **Total Major Required Hours** | **53** | **35** | **49** |

* Courses required for the diploma - 43 SHC

**Co-Op Option: Qualified student may elect to take up to 3 credit hours of Cooperative Education as the 3 hours of elective credit.

**Total Semester Credit Hours in Program** **71**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| BPR | 111 | 2 |
| DFT | 119 | 2 |
| ENG | 111 | 3 |
| MAT | 121 | 3 |
| MEC | 111 | 3 |
| MNT | 110 | 2 |
| | | 16 |
| **Spring Semester** | | |
| BPR | 121 | 2 |
| CIS | 110 | 3 |
| ENG | 114 | 3 |
| ISC | 112 | 2 |
| MAC | 121 | 2 |
| MEC | 112 | 3 |
| MEC | 160 | 2 |
| | | 17 |
| **Summer Semester** | | |
| COM | 120 | 3 |
| MNT | 111 | 2 |
| WLD | 112 | 2 |
| | | 7 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| AHR | 120 | 2 |
| ELC | 128 | 3 |
| ELC | 131 | 5 |
| HYD | 110 | 3 |
| Humanities/Fine Arts | | 3 |
| | | 16 |
| **Spring Semester** | | |
| ELN | 231 | 3 |
| MEC | 210 | 2 |
| MNT | 220 | 2 |
| MNT | 230 | 2 |
| Elective | | 3 |
| Social/Behavioral Science | | 3 |
| | | 15 |

# INFORMATION SYSTEMS [A25260]
## A.A.S. DEGREE

**Curriculum Description:**

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

**Course and Hour Requirements**

| Title | | | Credits | Class | Lab |
|---|---|---|---|---|---|
| **General Education Courses** | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0) |
| MAT | 140 | Survey of Mathematics | **3** | (3 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| - | - | Social/ Behavioral Science Elective | **3** | (3 | 0) |
| | **Total General Education Required Hours** | | **18** | **18** | **0** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0) |
| ACC | 120 | Principles of Accounting I | **4** | (3 | 2) |
| ACC | 121 | Principles of Accounting II | **4** | (3 | 2) |
| BUS | 270 | Professional Development | **3** | (3 | 0) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| CIS | 115 | Intro. to Programming & Logic | **3** | (2 | 2) |
| CIS | 120 | Spreadsheet I | **3** | (2 | 2) |
| CIS | 130 | Survey of Operating Systems | **3** | (2 | 3) |
| CIS | 152 | Database Concepts & Applications | **3** | (2 | 2) |
| CIS | 164 | DTP Layout and Design | **3** | (2 | 2) |
| NET | 110 | Data Communications/Networking | **3** | (2 | 2) |
| OST | 131 | Keyboarding | **2** | (1 | 2) |
| | -- | Electives* | **12** | (12 | 0) |
| *Select two of the following three languages* | | | **6** | (4 | 6) |
| CSC | 132 | BASIC Programming **3**(2-3) | | | |
| CSC | 135 | COBOL Programming **3**(2-3) | | | |
| CSC | 138 | RPG Programming **3**(2-3) | | | |
| **Total Major Required Hours** | | | **53** | **(41** | **27)** |

***Approved Electives:***

*Select 12 SHC from the following:*

| | | | |
|---|---|---|---|
| ACC | 140 | Payroll Accounting | 2 |
| ACC | 225 | Cost Accounting | 4 |
| BUS | 110 | Intro. to Business | 3 |
| BUS | 121 | Business Math | 3 |
| BUS | 152 | Human Relations | 3 |

| | |
|---|---|
| COE - 1-3 credit hours | 1-3 |
| CSC 134 C++ Programming | 3 |
| ECO 251Prin. of Microeconomics | 3 |
| OST134Text Entry & Formatting | 4 |

**Total Semester Credit Hours in Program** **71**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semester

### First Year

**Fall Semester**

| | | |
|---|---|---|
| ACA | 111 | 1 |
| CIS | 110 | 3 |
| CIS | 115 | 3 |
| ENG | 111 | 3 |
| MAT | 140 | 3 |
| OST | 131 | 2 |
| | | 15 |

**Spring Semester**

| | | |
|---|---|---|
| ACC | 120 | 4 |
| CIS | 130 | 3 |
| *CSC | 132 and/or | (3) |
| *CSC | 135 | (3) |
| ENG | 114 | 3 |
| COM | 120 | 3 |
| | | 19 (16) |

**Summer Session**

| | | |
|---|---|---|
| CIS | 120 | 3 |
| CIS | 164 | 3 |
| NET | 110 | 3 |
| | | 9 |

### Second year

**Fall Semester**

| | | |
|---|---|---|
| ACC | 121 | 4 |
| *CSC | 138 | (3) |
| Humanities/Fine Arts | | 3 |
| Major Elective | | 9 |
| | | 16 (19) |

**Spring Semester**

| | | |
|---|---|---|
| BUS | 270 | 3 |
| CIS | 152 | 3 |
| Social/Behavioral Sciences | | 3 |
| Major Elective | | 3 |
| | | 12 |

**** Select two of three languages***

# INFORMATION SYSTEMS - PROGRAMMING [A2526E]

## A.A.S. DEGREE

### Curriculum Description:

Programming is a concentration under the curriculum title of Information Systems. This curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, computer operators, systems technicians, database specialists, computer specialists, software specialists, or information systems managers.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Courses** | | | | | |
| ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0) |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| MAT | 140 | Survey of Mathematics | **3** | (3 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| - | - | Social/ Behavioral Science Elective | **3** | (3 | 0) |
| | **Total General Education Hours** | | **18** | **(18** | **0)** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0) |
| ACC | 120 | Principles of Accounting I | **4** | (3 | 2) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| CIS | 115 | Intro. to Programming & Logic | **3** | (2 | 2) |
| CIS | 120 | Spreadsheet I | **3** | (2 | 2) |
| CIS | 130 | Survey of Operating Systems | **3** | (2 | 3) |
| CIS | 147 | Operating Systems - Windows | **3** | (2 | 2) |
| CIS | 152 | Database Concepts & Applications | **3** | (2 | 2) |
| CSC | 132 | BASIC Programming | **3** | (2 | 3) |
| CSC | 135 | COBOL Programming | **3** | (2 | 3) |
| CSC | 138 | RPG Programming | **3** | (2 | 3) |
| CSC | 143 | Object Oriented Programming | **3** | (2 | 3) |
| NET | 110 | Data Communications/Networking | **3** | (2 | 2) |
| - | - | Major Elective ** | **9** | (6 | 9) |
| *Advanced Programming:(Select two)* | | | **6** | (4 | 6) |
| CSC | 232 | Advanced BASIC **3** (2-3) | | | |
| CSC | 235 | Advanced COBOL **3** (2-3) | | | |
| CSC | 238 | Advanced RPG **3** (2-3) | | | |
| | **Total Major Required Hours** | | **53** | **(36** | **44)** |

***Approved Electives:***
Select 9 SHC from the Following:

| | | | |
|---|---|---|---|
| ACC | 121 | Principles of Accounting II | **4** |
| BUS | 110 | Introduction to Business | **3** |
| BUS | 152 | Human Relations | **3** |
| BUS | 270 | Professional Development | **3** |
| CIS | 164 | DTP Layout and Design | **3** |
| ECO | 251 | Principles of Microeconomics | **3** |
| OST | 131 | Keyboarding | **2** |
| OST | 134 | Text Entry & Formatting | **4** |
| OST | 136 | Word Processing | **2** |
| COE | - | 1 to 3 hours | **[1]** |
| | | | **[2]** |

**Total Semester Credit Hours in Program** **71**
**Select two of the three languages*

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| CIS | 110 | 3 |
| CIS | 115 | 3 |
| ENG | 111 | 3 |
| MAT | 140 | 3 |
| | | 13 |
| **Spring Semester** | | |
| ACC | 120 | 4 |
| CIS | 130 | 3 |
| CIS | 147 | 3 |
| CSC | 132 | 3 |
| CSC | 135 | 3 |
| | | 16 |
| **Summer Semester** | | |
| CIS | 120 | 3 |
| *CSC | 232 and/or | (3) |
| *CSC | 235 | (3) |
| NET | 110 | 3 |
| | | 12 (9) |

**Select two of the three languages*

### Second Year

| *Prefix* | | *HoursCredit* |
|---|---|---|
| **Fall Semester** | | |
| CSC | 138 | 3 |
| CIS | 143 | 3 |
| ENG | 114 | 3 |
| COM | 120 | 3 |
| Humanities/Fine Arts | | 3 |
| Major Elective | | 3 |
| | | 18 |
| **Spring Semester** | | |
| CIS | 152 | 3 |
| *CSC | 238 | (3) |
| Social/Behavioral Sciences | | 3 |
| Major Elective | | 6 |
| | | 12 (15) |

# MACHINING TECHNOLOGY [A50300]
## A.A.S. DEGREE

### Curriculum Description

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining job shops.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0) |
| * ENG | 111 | Expository Writing | 3 | (3 | 0) |
| ENG | 114 | Professional Research & Reporting | 3 | (3 | 0) |
| * PHY | 121 | Applied Physics I | 4 | (3 | 2) |
| - | - | Humanities/Fine Arts Elective | 3 | (3 | 0) |
| - | - | Social/Behavioral Science Elective | 3 | (3 | 0) |
| | | | 19 | (18 | 2) |
| **Major Required Hours** | | | | | |
| * ACA | 111 | College Student Success | 1 | (1 | 0) |
| * BPR | 111 | Blueprint Reading | 2 | (2 | 1) |
| * BPR | 121 | Blueprint Reading - Mechanical | 2 | (2 | 1) |
| CIS | 110 | Intro to Computers | 3 | (2 | 2) |
| * DFT | 151 | CAD I | 3 | (2 | 3) |
| ISC | 121 | Environmental Health and Safety | 3 | (3 | 0) |
| * MAC | 111 | Machining Technology I | 6 | (2 | 12) |
| * MAC | 112 | Machining Technology II | 6 | (2 | 12) |
| * MAC | 113 | Machining Technology III | 6 | (2 | 12) |
| * MAC | 114 | Intro to Metrology | 2 | (2 | 0) |
| * MAC | 121 | Intro to CNC | 2 | (2 | 0) |
| * MAC | 122 | CNC Turning | 2 | (1 | 3) |
| * MAC | 124 | CNC Milling | 2 | (1 | 3) |
| * MAC | 152 | Advanced Machining Calculations | 2 | (1 | 2) |
| MAC | 222 | Advanced CNC Turning | 2 | (1 | 3) |
| MAC | 224 | Advanced CNC Milling | 2 | (1 | 3) |
| MAC | 247 | Production Tooling | 2 | (2 | 0) |
| * MEC | 110 | Intro to CAD/CAM | 2 | (1 | 2) |
| MEC | 180 | Engineering Materials | 3 | (2 | 3) |
| - | - | Major Elective** | 2 | (2 | 0) |
| | | | 55 | (34 | 62) |

***Choose from the following courses:*

MAC 226 CNC-EDM Machining (2)
MAC 248 Production Procedures (2)
ISC 132 Manufacturing Quality Control (3)
COE 111, 112, 121, or 122 Cooperative Education (1-2)

| | |
|---|---|
| **Total Semester Hours Credit in Program** | **74 SHC** |
| *Total Credit Hours required for Diploma | 45 SHC |

# Suggested Curriculum by Semesters

## First Year

**Fall Semester**

| | | |
|---|---|---|
| ACA | 111 | 1 |
| BPR | 111 | 2 |
| ENG | 111 | 3 |
| MAC | 111 | 6 |
| MAC | 114 | 2 |
| Humanities/Fine Arts | | 3 |
| | | 17 |

**Spring Semester**

| | | |
|---|---|---|
| BPR | 121 | 2 |
| COM | 120 | 3 |
| ENG | 114 | 3 |
| MAC | 112 | 6 |
| MAC | 121 | 2 |
| MAC | 152 | 2 |
| | | 18 |

**Summer Semester**

| | | |
|---|---|---|
| MAC | 122 | 2 |
| MEC | 110 | 2 |
| MEC | 180 | 3 |
| | | 7 |

## Second Year

**Fall Semester**

| | | |
|---|---|---|
| CIS | 110 | 3 |
| MAC | 113 | 6 |
| MAC | 222 | 2 |
| PHY | 121 | 4 |
| MAC | 124 | 2 |
| | | 17 |

**Spring Semester**

| | | |
|---|---|---|
| DFT | 151 | 3 |
| ISC | 121 | 3 |
| MAC | 224 | 2 |
| MAC | 247 | 2 |
| Major Elective | | 2 |
| Social /Behavioral Science | | 3 |
| | | 15 |

## Basic Machining Certificate

| Title | | Credit | Class | Lab | |
|---|---|---|---|---|---|
| BPR | 111 | Blueprint Reading | 2 | (1 | 2) |
| MAC | 111 | Machining Technology I | 6 | (2 | 12) |
| MAC | 121 | Intro to CNC | 2 | (2 | 0) |
| MAC | 122 | CNC Turning | 2 | (1 | 3) |
| MAC | 124 | CNC Milling | 2 | (1 | 3) |
| MAC | 152 | Advanced Machining Calculations | 2 | (1 | 2) |
| MEC | 110 | Intro to CAD/CAM | 2 | (1 | 2) |
| | | | **18** | **(9** | **24)** |

## Advanced Machining Certificate

| Title | | Credit | Class | Lab | |
|---|---|---|---|---|---|
| BPR | 121 | Blueprint Reading - Mechanical | 2 | (1 | 2) |
| DFT | 151 | CAD I | 3 | (2 | 3) |
| MAC | 112 | Machining Technology II | 6 | (2 | 12) |
| MAC | 114 | Intro to Metrology | 2 | (2 | 0) |
| MAC | 222 | Advanced CNC Turning | 2 | (1 | 3) |
| MAC | 224 | Advanced CNC Milling | 2 | (1 | 3) |
| | | | **17** | **(9** | **23)** |

# Manufacturing Engineering Technology
## [A40300]
## A.A.S. Degree

### Curriculum Description:

The Manufacturing Engineering Technology curriculum prepares individuals for employment in the fields of manufacturing technology. The curriculum emphasizes the theory and training required to effectively augment manufacturing engineers in industry.

Courses include a background in mechanical and related theory and the use of manufacturing and analytical equipment. Industrial standards such as EPA, OSHA, GD & T, and ISO are discussed. Computer usage for process control and effective communication skills is emphasized.

Graduates of this curriculum specification, tooling selection, automation programming, project facilitation, and supervision. Certification is available through organizations such as ASQC, SME, and NICET.

### Course and Hour Requirements

| | Title | Credit | Hours Class | Hours Lab |
|---|---|---|---|---|
| **General Education Courses** | | | | |
| COM 120 | Interpersonal Communication | **3** | (3 | 0) |
| *ENG 111 | Expository Writing | **3** | (3 | 0) |
| ENG 114 | Professional Research and Reporting | **3** | (3 | 0) |
| *MAT 121 | Algebra/Trigonometry I Or | **3** | (2 | 2) |
| MAT 161 | College Algebra & | [3 | (3 | 0)] |
| MAT 162 | College Trigonometry | [3 | (3 | 0)] |
| - - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| - - | Social/Behavioral Science Elective | **3** | (3 | 0) |
| | **Total General Education Required Hours** | **18-21** | **(17-20** | **2)** |
| **Major Required Courses** | | | | |
| *ACA 111 | College Student Success | **1** | (1 | 0) |
| *CIS 110 | Introduction to Computers | **3** | (2 | 2) |
| *DFT 111 | Technical Drafting I | **4** | (2 | 6) |
| *DFT 151 | CAD I | **3** | (2 | 3) |
| *DFT 153 | CAD III | **3** | (2 | 3) |
| *ELC 111 | Introduction to Electricity | **3** | (2 | 2) |
| *HYD 110 | Hydraulics/Pneumatics | **3** | (2 | 3) |
| *ISC 112 | Industrial Safety | **2** | (2 | 0) |
| *ISC 132 | Manufacturing Quality Control | **3** | (0 | 3) |
| *MEC 110 | Introduction to CAD/CAM | **2** | (1 | 2) |
| *MEC 111 | Machine Processes I | **3** | (2 | 3) |
| *MEC 161 | Manufacturing Processes I | **3** | (3 | 0) |
| *MEC 180 | Engineering Materials | **3** | (2 | 3) |
| MEC 250 | Statics & Strength of Materials | **5** | (4 | 3) |
| PHY 131 | Physics - Mechanics Or | **4** | (3 | 2) |
| PHY 151 | College Physics I | [4 | (3 | 2)] |
| * - - | Major Electives** * [(Diploma - (3)] | **6** | (6 | 0) |
| | **Total Major Required Hours** | **51** | **(39** | **35)** |

**Approved Major Electives:

| | | | | | |
|---|---|---|---|---|---|
| CIS 120 | Spreadsheet I | (3) | ISC 140 | Material & Capacity Plan | (3) |
| CIS 152 | Database Concepts & Apps | (3) | ISC 141 | Prod Activity Control | (3) |
| CSC 132 | BASIC Programming | (3) | ISC 221 | Statistical Qual Control | (3) |
| CSC 135 | COBOL Programming | (3) | MAC 121 | Intro to CNC | (2) |
| CSC 138 | RPG Programming | (3) | MAC 122 | CNC Turning | (2) |
| COE - | Cooperative Education | (1-6) | MAC 124 | CNC Milling | (2) |
| DFT 112 | Technical Drafting II | (4) | WLD 111 | Oxy-Fuel Welding | (2) |
| DFT 152 | CAD II | (3) | WLD 112 | Basic Welding Processes | (2) |
| ELC 112 | DC/AC Electricity | (5) | WLD 115 | SMAW (Stick) Plate | (5) |
| ELN 131 | Electronic Devices | (4) | | | |

**Total Semester Credit Hours in Program** **69-72**

*Courses required for the diploma. Credit hours required for diploma - 44-45

# Manufacturing Engineering Technology

## Suggested Curriculum by Semesters

### First Year

| *Prefix* | | | *Hours Credit* |
|---|---|---|---|
| **Fall Semester** | | | |
| ACA | 111 | | 1 |
| DFT | 111 | | 4 |
| ENG | 111 | | 3 |
| MAT | 121 | Or | 3 |
| MAT | 161 | | [3] |
| MEC | 111 | | 3 |
| | | | 14 |
| **Spring Semester** | | | |
| ENG | 114 | | 3 |
| ISC | 112 | | 2 |
| MEC | 110 | | 2 |
| DFT | 151 | | 3 |
| MAT | 162 | | [3] |
| Social/Behavioral Science | | | 3 |
| | | | 13 (16) |
| **Summer Semester** | | | |
| DFT | 153 | | 3 |
| MEC | 180 | | 3 |
| PHY | 131 | Or | 4 |
| PHY | 151 | | |
| | | | 10 |

### Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| CIS | 110 | 3 |
| COM | 120 | 3 |
| ELC | 111 | 3 |
| Humanities/Fine Arts | | 3 |
| Major Elective | | 3 |
| | | 15 |
| **Spring Semester** | | |
| HYD | 110 | 3 |
| ISC | 132 | 3 |
| MEC | 161 | 3 |
| MEC | 250 | 5 |
| Major Elective | | 3 |
| | | 17 |

# Manufacturing Engineering Technology
## Certificate Program

| Title | | | Credit | Class | Lab |
|---|---|---|---|---|---|
| DFT | 111 | Technical Drafting I | **4** | (2 | 6) |
| DFT | 151 | CAD I | **3** | (2 | 3) |
| ELC | 111 | Introduction to Electricity | **3** | (2 | 2) |
| MEC | 110 | Introduction to CAD/CAM | **2** | (1 | 2) |
| MEC | 111 | Machine Processes I | **3** | (2 | 3) |
| MEC | 161 | Manufacturing Processes I | **3** | (3 | 0) |
| | | **Total Hours in Curriculum for Certificate** | **18** | **(12** | **16)** |

# MECHANICAL DRAFTING TECHNOLOGY [A50340]

## A.A.S. DEGREE

### Curriculum Description:

The Mechanical Drafting Technology curriculum prepares technicians to produce drawings of mechanical parts, components of mechanical systems, and mechanisms. CAD and the importance of technically correct drawings and designs based on current standards are emphasized.

Course work includes mechanical drafting, CAD, and proper drawing documentation. Concepts such as machine shop processes, basic materials, and physical sciences as they relate to the design process are also included. The use of proper dimensioning and tolerance techniques is stressed.

Graduates should qualify for employment in mechanical areas such as manufacturing, fabrication, research and development, and service industries.

### Course and Hour Requirements

| Title | | | Credits | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Courses** | | | | | |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0) |
| *ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research and Reporting | **3** | (3 | 0) |
| *MAT | 121 | Algebra/Trigonometry I Or | **3** | (2 | 2) |
| MAT | 161 | College Algebra And | [3 | (3 | 0)] |
| MAT | 162 | College Trigonometry | [3 | (3 | 0)] |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| - | - | Social/Behavioral Science Elective | **3** | (3 | 0) |
| **Total General Education Required Hours** | | | **18-21** | **(17-20** | **2)** |
| **Major Required Courses** | | | | | |
| *ACA | 111 | College Student Success | **1** | (1 | 0) |
| *CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| CIS | 120 | Spreadsheet I | **3** | (2 | 2) |
| *DFT | 111 | Technical Drafting I | **4** | (2 | 6) |
| *DFT | 112 | Technical Drafting II | **4** | (2 | 6) |
| DFT | 121 | Introduction to GD & T | **2** | (1 | 2) |
| *DFT | 151 | CAD I | **3** | (2 | 3) |
| *DFT | 152 | CAD II | **3** | (2 | 3) |
| *DFT | 153 | CAD III | **3** | (2 | 3) |
| DFT | 211 | Gears, Cams, & Pulleys | **2** | (1 | 3) |
| *DFT | 214 | Descriptive Geometry | **2** | (1 | 2) |
| DFT | 231 | Jig & Fixture Design | **2** | (1 | 2) |
| HYD | 110 | Hydraulics/Pneumatics | **3** | (2 | 3) |
| MEC | 110 | Introduction to CAD/CAM | **2** | (1 | 2) |
| *MEC | 111 | Machine Processes I | **3** | (2 | 3) |
| *MEC | 180 | Engineering Materials | **3** | (2 | 3) |
| MEC | 210 | Materials - Stress & Analysis | **2** | (1 | 2) |
| * - | - | Major Electives** *(diploma - 3 hrs.)* | **6** | (6 | 0) |
| | | **Total Major Required Hours** | **51** | **(33** | **47)** |

** Courses required for diploma. Credit Hours required for diploma - 38*

***Approved Major Electives**

| | | | |
|---|---|---|---|
| CIS 152 | Database Concepts & Apps 3 | ISC 140 | Material & Capacity Plan 3 |
| CSC 132 | BASIC Programming 3 | ISC 141 | Prod Activity Control 3 |
| CSC 135 | COBOL Programming 3 | ISC 221 | Statistical Qual Control 3 |
| CSC 138 | RPG Programming 3 | WLD 111 | Oxy-Fuel Welding 2 |
| COE - | Cooperative Education 1-6 | WLD 112 | Basic Welding Processes 2 |
| | | WLD 115 | SMAW (Stick) Plate 5 |

**Total Semester Credit Hours in Programs** **69-72**

***Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

| First Year | | Second Year | |
|---|---|---|---|
| ***Prefix*** | ***Hours Credit*** | ***Prefix*** | ***Hours Credit*** |
| **Fall Semester** | | **Fall Semester** | |
| ACA 111 | 1 | CIS 110 | 3 |
| DFT 111 | 4 | DFT 121 | 2 |
| DFT 151 | 3 | DFT 211 | 2 |
| ENG 111 | 3 | MEC 210 | 2 |
| MAT 121 | 3 | Social/Behavioral Science | 3 |
| MEC 111 | 3 | Major Elective | 3 |
| | 17 | | 15 |
| **Spring Semester** | | **Spring Semester** | |
| DFT 112 | 4 | CIS 120 | 3 |
| DFT 152 | 3 | COM 120 | 3 |
| ENG 114 | 3 | DFT 231 | 2 |
| MEC 110 | 2 | HYD 110 | 3 |
| Humanities/Fine Arts | 3 | Major Elective | 3 |
| | 15 | | 14 |
| **Summer Semester** | | | |
| DFT 153 | 3 | | |
| DFT 214 | 2 | | |
| MEC 180 | 3 | | |
| | 8 | | |

## Certificate Options
## CAD Drafting Certificate

| | | | | | |
|---|---|---|---|---|---|
| DFT | 111 | Technical Drafting I | **4** | (2 | 6) |
| DFT | 151 | CAD I | **3** | (2 | 3) |
| DFT | 152 | CAD II | **3** | (2 | 3) |
| DFT | 153 | CAD III | **3** | (2 | 3) |
| MEC | 110 | Intro to CAD/CAM | **2** | (1 | 2) |
| | | **Total Hours in Certificate Curriculum** | **15** | **(9** | **17)** |

## Mechancial Drafting Certificate

| | | | | | |
|---|---|---|---|---|---|
| DFT | 111 | Technical Drafting I | **4** | (2 | 6) |
| DFT | 112 | Technical Drafting II | **4** | (2 | 6) |
| DFT | 121 | Intro. To GD & T | **2** | (1 | 2) |
| DFT | 152 | CAD II | **3** | (2 | 3) |
| DFT | 211 | Gears, Cams & Pulleys | **2** | (1 | 3) |
| DFT | 214 | Descriptive Geometry | **2** | (1 | 2) |
| | | **Total Hours in Certificate Curriculum** | **17** | **(9** | **22)** |

# MEDICAL ASSISTING [A45400]

## A.A.S. DEGREE

**Curriculum Description:**
The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/ treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

### Course and Hour Requirements

| | | | Hours | | |
|---|---|---|---|---|---|
| **Title** | | **Credits** | **Class** | **Lab** | **Clinical** |
| **General Education Required Courses** | | | | | |
| *ENG 111 | Expository Writing | 3 | (3 | 0 | 0) |
| COM 120 | Interpersonal Communication | 3 | (3 | 0 | 0) |
| MAT 110 | Mathematical Measurements | 3 | (2 | 2 | 0) |
| *PSY 118 | Interpersonal Psychology | 3 | (3 | 0 | 0) |
| - - | Humanities/Fine Arts Elective | 3 | (3 | 0 | 0) |
| | **Total General Education Required Hours** | **15** | **(14** | **2** | **0)** |
| **Major Required Courses** | | | | | |
| *ACA 111 | College Student Success | 1 | (1 | 0 | 0) |
| BUS 153 | Human Resource Management Or | 3 | (3 | 0 | 0) |
| BUS 135 | Principles of Supervision Or | | | | |
| BUS 137 | Principles of Management | | | | |
| *MED 110 | Orientation to Medical Assisting | 1 | (1 | 0 | 0) |
| *MED 116 | Introduction to Anatomy & Physiology | 4 | (3 | 2 | 0) |
| *MED 118 | Medical Law & Ethics | 2 | (2 | 0 | 0) |
| *MED 121 | Medical Terminology I | 3 | (3 | 0 | 0) |
| *MED 122 | Medical Terminology II | 3 | (3 | 0 | 0) |
| *MED 130 | Administrative Office Procedures I | 2 | (1 | 2 | 0) |
| *MED 131 | Administrative Office Procedures II | 2 | (1 | 2 | 0) |
| *MED 134 | Medical Transcription I | 3 | (2 | 2 | 0) |
| *MED 140 | Exam Room Procedures I | 5 | (3 | 4 | 0) |
| *MED 150 | Laboratory Procedures I | 5 | (3 | 4 | 0) |
| MED 232 | Medical Insurance Coding | 2 | (1 | 3 | 0) |
| MED 240 | Exam Room II | 5 | (3 | 4 | 0) |
| *MED260 | MED Clinical Externship | 5 | (0 | 0 | 15) |
| MED 270 | Symptomatology | 3 | (2 | 2 | 0) |
| MED 272 | Drug Therapy | 3 | (3 | 0 | 0) |
| MED 276 | Patient Education | 2 | (1 | 2 | 0) |
| *OST 131 | Keyboarding | 2 | (1 | 2 | 0) |
| *OST 134 | Text Entry & Formatting | 4 | (3 | 2 | 0) |
| | **Total Major Required Hours** | **60** | **(39** | **32** | **15)** |
| **Total Semester Credit Hours in Program** | | **75** | | | |

*Hours required for Diploma - 48 SHC

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| ENG | 111 | 3 |
| MED | 110 | 1 |
| MED | 116 | 4 |
| MED | 118 | 2 |
| MED | 121 | 3 |
| MED | 130 | 2 |
| OST | 131 | 2 |
| | | 18 |
| **Spring Semester** | | |
| MED | 122 | 3 |
| MED | 131 | 2 |
| MED | 140 | 5 |
| MED | 150 | 5 |
| OST | 134 | 4 |
| | | 19 |
| **Summer Semester** | | |
| MED | 134 | 3 |
| MED | 260 | 5 |
| PSY | 118 | 3 |
| | | 11 |

## Second Year

| *Prefix* | | | *Hours Credit* |
|---|---|---|---|
| **Fall Semester** | | | |
| COM | 120 | | 3 |
| MAT | 110 | | 3 |
| MED | 232 | | 2 |
| MED | 240 | | 5 |
| | | | 13 |
| **Spring Semester** | | | |
| BUS | 135 | or | 3 |
| BUS | 137 | or | (3) |
| BUS | 153 | | (3) |
| MED | 270 | | 3 |
| MED | 272 | | 3 |
| MED | 276 | | 2 |
| Humanities/Fine Arts | | | 3 |
| | | | 14 |

# Motorsports Management Technology [A60270]

## A.A.S. Degree

### Curriculum Description:

The Motorsports Management Technology curriculum is designed to provide students with the knowledge and skills necessary to perform mid-management level functions in motorsports related companies.

Course work includes instruction in general studies, motorsports fundamentals, principles of management, computer applications, accounting, business mathematics, marketing, advertising and sales promotion, and human relations.

Graduates should qualify for employment/advancement in jobs related to management of motorsports teams/events/activities, as well as production and distribution of motorsports products and services.

***Mitchell Community College is offering the Motorsports Management Technology program in collaboration with Rowan-Cabarrus Community College. All MSM courses will be taught by RCCC at their South Campus in Concord. The degree will be conferred by both MCC and RCCC and awarded at MCC graduation.***

***This is a limited enrollment program with students being accepted according to a "first to qualify" basis. Please see an admission counselor for criteria used for admission into the program***

### Course and Hour Requirements

| Title | | | Credit | Hours (Class | Lab) |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| ENG | 111 | Expository Writing | **3** | (3 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0) |
| - | - | Math/Natural Science Elective | **3** | (3 | 0) |
| - | - | Social/Behavioral Science Elective | **3** | (3 | 0) |
| **Total General Education Required Hours** | | | **15** | 15 | (0) |
| **Major Required Courses** | | | | | |
| ACC | 120 | Principles of Accounting I | **4** | (3 | 2) |
| BUS | 121 | Business Math | **3** | (2 | 2) |
| BUS | 137 | Principles of Management | **3** | (3 | 0) |
| BUS | 230 | Small Business Management | **3** | (3 | 0) |
| BUS | 253 | Leadership & Management Skills | **3** | (3 | 0) |
| CIS | 110 | Introduction to Computers | **3** | (2 | 2) |
| CIS | 120 | Spreadsheet I | **3** | (2 | 2) |
| COE | 112 | Cooperative Education | **2** | (0 | 20) |
| MKT | 220 | Advertising and Sales Promotion | **3** | (3 | 0) |
| *MSM | 110 | Intro to Motorsports Management | **3** | (3 | 0) |
| *MSM | 112 | Engine/Drivetrain Fundamentals | **3** | (2 | 2) |
| *MSM | 114 | Tire Fundamentals | **2** | (2 | 0) |
| *MSM | 210 | Motorsports Marketing | **3** | (3 | 0) |
| *MSM | 212 | Chassis/Handling Fundamentals | **2** | (1 | 2) |
| *MSM | 214 | Fabrication Fundamentals | **2** | (1 | 2) |
| *MSM | 216 | Organization Mobility | **2** | (2 | 0) |
| *MSM | 218 | Safety/Environment | **2** | (2 | 0) |
| OMT | 155 | Meeting & Presentation Skills | **3** | (3 | 0) |
| **Total Major Required Hours** | | | **49** | (40 | 34) |
| **Total Semester Credit Hours in Program** | | | **64** | | |

**These courses will be taught at Rowan-Cabarrus Community College in Concord.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | *Hours Credit* |
|---|---|
| **Fall Semester** | |
| BUS 137 | 3 |
| CIS 110 | 3 |
| ENG 111 | 3 |
| MSM 110 | 3 |
| MSM 112 | 3 |
| | 15 |
| **Spring Semester** | |
| BUS 121 | 3 |
| CIS 120 | 3 |
| ENG 114 | 3 |
| MSM 114 | 2 |
| MSM 216 | 2 |
| Math/Natural Science | 3 |
| | 16 |
| **Summer Semester** | |
| COE 112 | 2 |
| | 2 |

## Second Year

| *Prefix* | *Hours Credit* |
|---|---|
| **Fall Semester** | |
| ACC 120 | 4 |
| BUS 230 | 3 |
| MSM 210 | 3 |
| MSM 212 | 2 |
| Social/Behavioral Science | 3 |
| | 15 |
| **Spring Semester** | |
| BUS 253 | 3 |
| MKT 220 | 3 |
| MSM 214 | 2 |
| MSM 218 | 2 |
| OMT 155 | 3 |
| Humanities/Fine Arts | 3 |
| | 16 |

*MSM courses will be taught at Rowan-Cabarrus Community College in Concord.*

# Nursing Assistant [C45480]

## Certificate Program

### Curriculum Description:

The Nursing Assistant curriculum prepares individuals to work under the supervision of licensed health care professionals in performing nursing care and services for persons of all ages.

Course work emphasizes growth and development throughout the life span, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management; family resources and services; and employment skills.

Graduates of this curriculum may be eligible to be listed on the registry as a Nursing Assistant I and Nursing Assistant II. They may be employed in home health agencies, hospitals, clinics, nursing homes, extended care facilities, and doctor's offices.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab | Clinical |
|---|---|---|---|---|---|---|
| **General Education Courses** | | | | | | |
| None | | | | | | |
| **Major Required Courses** | | | | | | |
| NAS | 101 | Nursing Assistant I | **5** | (3 | 2 | 3) |
| NAS | 102 | Nursing Assistant II | **6** | (3 | 2 | 6) |
| NAS | 103 | Home Health Care | **2** | (2 | 0 | 0) |
| NAS | 104 | Home Health Clinical | **1** | (0 | 0 | 3) |
| **Total Semester Credit Hours in Program** | | | **14** | | | |

# OFFICE SYSTEMS TECHNOLOGY [A25360]

## A.A.S. DEGREE

**Curriculum Description:**

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab |
|---|---|---|---|---|---|
| **General Education Courses** | | | | | |
| ENG | 111 | Expository Writing | 3 | (3 | 0) |
| ENG | 114 | Professional Research and Reporting | 3 | (3 | 0) |
| COM | 120 | Interpersonal Communication | 3 | (3 | 0) |
| MAT | 140 | Survey of Mathematics | 3 | (3 | 0) |
| PSY | 118 | Interpersonal Psychology | 3 | (3 | 0) |
| - | - | Humanities/Fine Arts Elective | 3 | (3 | 0) |
| | **Total General Education Hours** | | **18** | **(18** | **0)** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | 1 | (1 | 0) |
| ACC | 120 | Principles of Accounting I | 4 | (3 | 2) |
| ACC | 140 | Payroll Accounting | 2 | (1 | 2) |
| BUS | 110 | Introduction to Business | 3 | (3 | 0) |
| BUS | 115 | Business Law I | 3 | (3 | 0) |
| BUS | 121 | Business Math | 3 | (2 | 2) |
| CIS | 110 | Introduction to Computers | 3 | (2 | 2) |
| CIS | 120 | Spreadsheet I | 3 | (2 | 2) |
| CIS | 152 | Database Concepts &Apps | 3 | (2 | 2) |
| NET | 110 | Data Comm/Networking | 3 | (2 | 2) |
| OST | 131 | Keyboarding | 2 | (1 | 2) |
| OST | 134 | Text Entry and Formatting | 4 | (3 | 2) |
| OST | 136 | Word Processing | 2 | (1 | 2) |
| OST | 164 | Text Editing Applications | 3 | (3 | 0) |
| OST | 181 | Introduction to Office Systems | 3 | (3 | 0) |
| OST | 184 | Records Management | 2 | (1 | 2) |
| OST | 223 | Machine Transcription I | 2 | (1 | 2) |
| OST | 236 | Advanced Word/Information Processing | 3 | (2 | 2) |
| OST | 286 | Professional Development | 2 | (2 | 0) |
| OST | 289 | Office Systems Management | 3 | (2 | 2) |
| - | - | Elective* | 3 | (3 | 0) |
| | **Total Major Required Hours** | | **57** | **(43** | **28)** |

**Approved Major Electives:*

| | | |
|---|---|---|
| ECO | 251 | Principles of Microeconomics (3) |
| COE | - | Cooperative Education (1-3) |

**Total Semester Credit Hours in Program** **75**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| ENG | 111 | 3 |
| MAT | 140 | 3 |
| OST | 131 | 2 |
| OST | 164 | 3 |
| OST | 184 | 2 |
| | | 14 |
| **Spring Semester** | | |
| BUS | 110 | 3 |
| BUS | 121 | 3 |
| CIS | 110 | 3 |
| ENG | 114 | 3 |
| OST | 134 | 4 |
| | | 16 |
| **Summer Semester** | | |
| ACC | 120 | 4 |
| CIS | 120 | 3 |
| NET | 110 | 3 |
| Major Elective | | 3 |
| | | 13 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACC | 140 | 2 |
| BUS | 115 | 3 |
| OST | 136 | 2 |
| OST | 181 | 3 |
| OST | 286 | 2 |
| Humanities/Fine Arts | | 3 |
| | | 15 |
| **Spring Semester** | | |
| CIS | 152 | 3 |
| COM | 120 | 3 |
| OST | 223 | 2 |
| OST | 236 | 3 |
| OST | 289 | 3 |
| PSY | 118 | 3 |
| | | 17 |

# Certificate Program

| | | | | | |
|---|---|---|---|---|---|
| OST | 131* | Keyboarding | 2 | (1 | 2) |
| OST | 134 | Text Entry & Formatting | 4 | (3 | 2) |
| OST | 164 | Text Editing Applications | 3 | (3 | 0) |
| OST | 181 | Intro to Office Systems | 3 | (3 | 0) |
| OST | 184 | Records Management | 2 | (1 | 2) |
| CIS | 110 | Intro to Computers | 3 | (2 | 2) |
| | | | 17 | (13 | 8) |

**Prerequisite for OST majors: placement test with minimum requirements of 25 words per minute with 2 errors or less on a three-minute timed writing or OST 080 Keyboarding Literacy.*

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# CPS Certification Credit

Credit for the following courses will be allowed for students who have passed the Certified Professional Secretary (CPS) exam.

| | | | | | |
|---|---|---|---|---|---|
| ACC | 120 | Principles of Accounting I (4) | OST | 164 | Text Editing Applications (3) |
| OST | 131 | Keyboarding (2) | OST | 181 | Intro to Office Systems (3) |
| OST | 134 | Text Entry and Formatting (4) | OST | 184 | Records Management (2) |
| OST | 136 | Word Processing (2) | PSY | 118 | Interpersonal Psychology (3) |

**Total Credit Hours Allowed - 23**

*Credit for additional courses may be earned through credit by exam.*

# PHLEBOTOMY [C45600]
## CERTIFICATE PROGRAM

**Curriculum Description:**

The Phlebotomy curriculum prepares individuals to obtain blood and other specimens for the purpose of laboratory analysis.

Course work includes proper specimen collection and handling, communication skills, and maintaining patient data.

Graduates may qualify for employment in hospitals, clinics, physicians's offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

### Course and Hour Requirements

| Title | | | Credit | Hours Class | Lab | Clinical |
|---|---|---|---|---|---|---|
| **General Education Courses** | | | | | | |
| None | | | | | | |
| **Major Required Courses** | | | | | | |
| PBT | 100 | Phlebotomy Technology | 6 | (5 | 2 | 0) |
| PBT | 101 | Phlebotomy Practicum | 3 | (0 | 0 | 9) |
| PSY | 118 | Interpersonal Psychology | 3 | (3 | 0 | 0) |
| **Total Semester Credit Hours in Program** | | | **12** | **(8** | **2** | **9)** |

## SUGGESTED CURRICULUM BY SEMESTERS

**Day Program**

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| PBT | 100 | 6 |
| PBT | 101 | 3 |
| PSY | 118 | 3 |
| | | 12 |

**Evening Program**

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| PBT | 100 | 6 |
| PSY | 118 | 3 |
| | | 9 |
| **Spring Semester** | | |
| PBT | 101 | 3 |
| | | 3 |

# Speech-Language Pathology Assistant [A45730]
## A.A.S. Degree

**Curriculum Description:**

The Speech-Language Pathology Assistant curriculum prepares graduates to work under the supervision of a licensed Speech-Language Pathologist, who evaluates, diagnoses, and treats individuals with communication disorders.

Courses provide instruction in methods of screening for speech, language, and hearing disorders and in following written protocols designed to remediate individual communication problems. Supervised field experiences include working with patients of various ages and with various disorders.

Graduates may be eligible for registration with the North Carolina Board of Examiners for Speech-Language Pathologists and Audiologists and must be supervised by a licensed Speech-Language Pathologist. They may be employed in healthcare or education settings.

***Mitchell Community College is offering the Speech-Language Pathology Assistant program in collaboration with four other community colleges in the Northwest Allied Health Project. This is a limited enrollment program with only the first year, Phase I, being offered by MCC. Phase II, the second year, of the program must be completed at Caldwell Community College and Technical Institute at Hudson, North Carolina. See the Director of Health Care programs or an admissions counselor for admissions information.***

### Course and Hour Requirements

## Phase I

| Title | | | Credits | Class | Lab | Clinical |
|---|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | | |
| ENG | 111 | Expository Writing | **3** | (3 | 0 | 0) |
| ENG | 114 | Professional Research & Reporting | **3** | (3 | 0 | 0) |
| BIO | 168 | Anatomy & Physiology I | **4** | (3 | 3 | 0) |
| PSY | 150 | General Psychology | **3** | (3 | 0 | 0) |
| - | - | Humanities/Fine Arts Elective | **3** | (3 | 0 | 0) |
| **Total General Education Required Hours** | | | **16** | **(15** | **3** | **0)** |
| **Major Required Courses** | | | | | | |
| ACA | 111 | College Student Success | **1** | (1 | 0 | 0) |
| BIO | 169 | Anatomy & Physiology II | **4** | (3 | 3 | 0) |
| COM | 120 | Interpersonal Communication | **3** | (3 | 0 | 0) |
| OST | 131 | Keyboarding | **2** | (1 | 2 | 0) |
| PSY | 241 | Developmental Psychology | **3** | (3 | 0 | 0) |
| PSY | 255 | Intro to Exceptionality | **3** | (3 | 0 | 0) |
| PSY | 265 | Behavioral Modification | **3** | (3 | 0 | 0) |
| - | - | Free Elective | **3** | (3 | 0 | 0) |
| **Total Major Required Hours** | | | **22** | **(20** | **5** | **0)** |

# Phase II

***Phase I must be completed with a grade of C or better on all courses in order to continue with Phase II.***

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Major Required Courses** | | | | | | | |
| SLP | 111 | Intro to Speech-Language Pathology | **3** | (3 | 0 | 0) |
| SLP | 112 | SLP Pathophysiology | **3** | (3 | 0 | 0) |
| SLP | 120 | SLP Administrative Office Procedures | **3** | (2 | 0 | 0) |
| SLP | 130 | Phonetics/Speech Patterns | **3** | (2 | 2 | 0) |
| SLP | 140 | Normal Communications | **3** | (3 | 0 | 0) |
| SLP | 211 | Disorders and Treatment I | **4** | (3 | 2 | 0) |
| SLP | 212 | Disorders and Treatment II | **4** | (3 | 2 | 0) |
| SLP | 220 | Assistive Technology | **2** | (1 | 2 | 0) |
| SLP | 230 | SLP Fieldwork* | **4** | (0 | 0 | 12) |
| SLP | 231 | Fieldwork Seminar | **3** | (3 | 0 | 0) |
| | | **Total Major Required Hours** | **32** | **(23** | **8** | **12)** |
| **Total Semester Credit Hours in Program** | | | **70** | | | |

*Clinical hours will be arranged locally if possible.

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

## Suggested Curriculum by Semesters

### First Year
### Phase I

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| BIO | 168 | 4 |
| ENG | 111 | 3 |
| OST | 131 | 2 |
| PSY | 150 | 3 |
| Humanities/Fine Arts | | 3 |
| Elective | | 3 |
| | | 19 |
| **Spring Semester** | | |
| BIO | 169 | 4 |
| COM | 120 | 3 |
| ENG | 114 | 3 |
| PSY | 241 | 3 |
| PSY | 255 | 3 |
| PSY | 265 | 3 |
| | | 19 |

### Second Year
### Phase II

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Summer Semester** | | |
| SLP | 111 | 3 |
| SLP | 112 | 3 |
| SLP | 130 | 3 |
| | | 9 |
| **Fall Semester** | | |
| SLP | 120 | 2 |
| SLP | 140 | 3 |
| SLP | 211 | 4 |
| SLP | 220 | 2 |
| | | 11 |
| **Spring Semester** | | |
| SLP | 212 | 5 |
| SLP | 230 | 4 |
| SLP | 231 | 3 |
| | | 12 |

# Welding Technology [D50420]

## Diploma Program

### Curriculum Description:

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career Opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

### Course and Hour Requirements

| Title | | | Credit | Class | Lab |
|---|---|---|---|---|---|
| **General Education Required Courses** | | | | | |
| ENG | 102 | Applied Communications I | 3 | (3 | 0) |
| MAT | 110 | Mathematical Measurement | 3 | (2 | 2) |
| **Total General Education Required Hours** | | | **6** | **(5** | **2)** |
| **Major Required Courses** | | | | | |
| ACA | 111 | College Student Success | 1 | (1 | 0) |
| BPR | 111 | Blueprint Reading | 2 | (1 | 2) |
| CIS | 110 | Introduction to Computers | 3 | (2 | 2) |
| DFT | 119 | Basic CAD | 2 | (1 | 2) |
| ISC | 112 | Industrial Safety | 2 | (2 | 0) |
| WLD | 110 | Cutting Processes | 2 | (1 | 3) |
| WLD | 115 | SMAW (Stick) Plate | 5 | (2 | 9) |
| WLD | 121 | GMAW (MIG) FCAW/Plate | 4 | (2 | 6) |
| WLD | 131 | GTAW (TIG) Plate | 4 | (2 | 6) |
| WLD | 141 | Symbols & Specifications | 3 | (2 | 2) |
| WLD | 143 | Welding Metallurgy | 2 | (1 | 2) |
| WLD | 261 | Certification Practices | 2 | (1 | 3) |
| WLD | 262 | Inspection & Testing | 3 | (2 | 2) |
| - | - | Major Elective* | 3 | (3 | 0) |
| **Total Major Required Hours** | | | **38** | **(23** | **39)** |

**Approved Major Electives:*

| | | |
|---|---|---|
| CSC | 132 | BASIC Programming (3) |
| DFT | 151 | CAD I (3) |
| ELC | 111 | Intro. to Electricity (3) |
| COE | - | Cooperative Education (1-3) |

**Total Semester Credit Hours in Program** **44**

*Students who test into two or more developmental areas are required to take ACA 111, others are exempt and are not required to have this hour of credit for graduation.*

# Suggested Curriculum by Semesters

## First Year

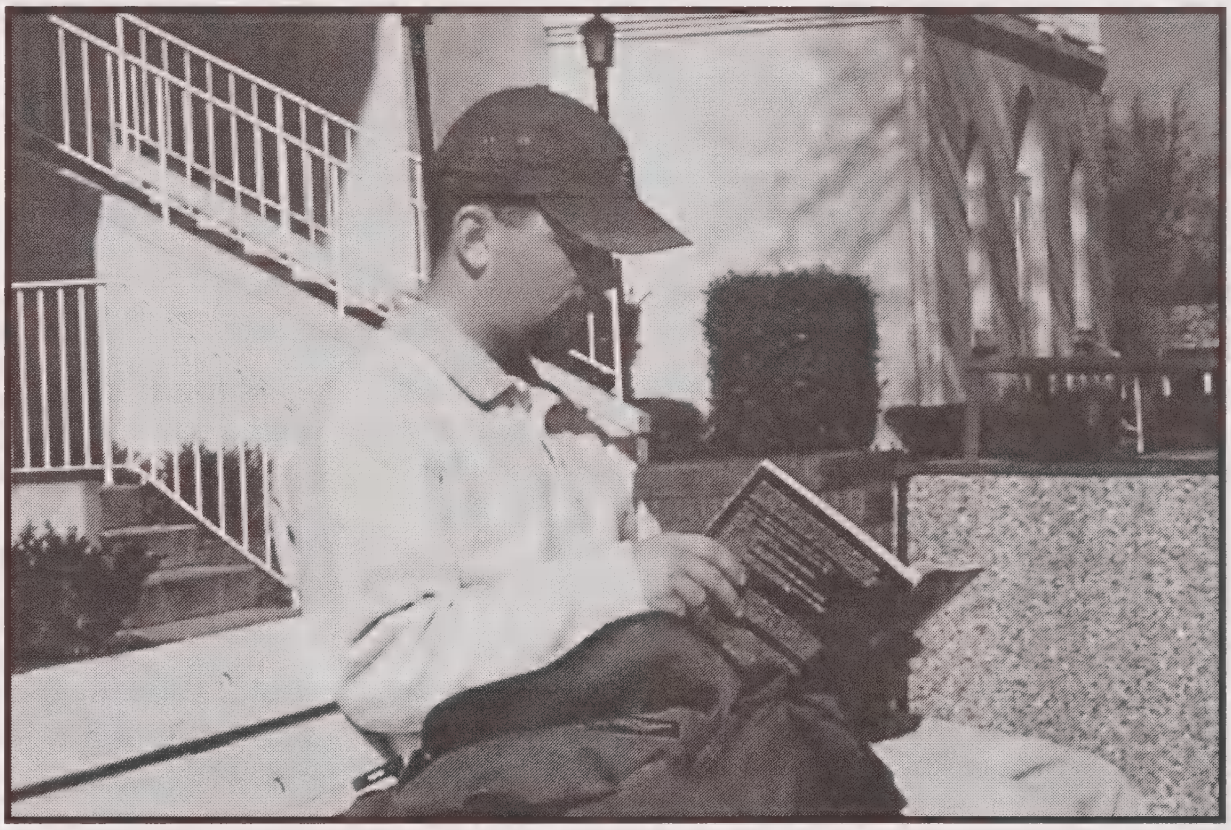
| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| ACA | 111 | 1 |
| BPR | 111 | 2 |
| MAT | 110 | 3 |
| WLD | 110 | 2 |
| | | 8 |
| **Spring Semester** | | |
| WLD | 121 | 4 |
| WLD | 131 | 4 |
| Major Elective | | 3 |
| | | 11 |
| **Summer Semester** | | |
| WLD | 141* | 3 |
| WLD | 261* | 2 |
| WLD | 262* | 3 |
| | | 8 |

## Second Year

| *Prefix* | | *Hours Credit* |
|---|---|---|
| **Fall Semester** | | |
| DFT | 119 | 2 |
| WLD | 115 | 5 |
| WLD | 143 | 2 |
| | | 9 |
| **Spring Semester** | | |
| CIS | 110 | 3 |
| ENG | 102 | 3 |
| ISC | 112 | 2 |
| | | 8 |

***WLD 141 taught odd years only. WLD 261 and WLD 262 taught even years only, according to the year of fall semester.***

# Curriculum Course Descriptions



# ■ Curriculum Course Descriptions

## ACADEMIC RELATED

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ACA 111** | **College Student Success** | 1 | 0 | 1 |

Prerequisites:
Corequisites: None

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives. Required of all students testing into two or more developmental areas; other students are exempt.

## ACCOUNTING

| | | | | |
|---|---|---|---|---|
| **ACC 110** | **Ten-Key Calculator** | 0 | 2 | 1 |

Prerequisites:
Corequisites: None

This course is designed to enable mastery of the "touch system" on the ten-key calculator. Emphasis is placed on the "touch system" on the ten-key calculator. Upon completion, students should be able to use the "touch system" on the ten-key calculator in making computations necessary in accounting.

| | | | | |
|---|---|---|---|---|
| **ACC 120** | **Prin Of Accounting I** | 3 | 2 | 4 |

Prerequisites: Satisfactory reading placement test score or completion of RED 090
Corequisites:

This course introduces the basic principles and procedures of accounting. Emphasis is placed on collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting.

| | | | | |
|---|---|---|---|---|
| **ACC 121** | **Prin of Accounting II** | 3 | 2 | 4 |

Prerequisites: ACC 120
Corequisites: None

This course is a continuation of ACC 120. Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management.

| | | | | |
|---|---|---|---|---|
| **ACC 131** | **Federal Income Taxes** | 2 | 2 | 3 |

Prerequisites: ACC 120
Corequisites: None

This course provides an overview of federal income taxes for individuals, partnerships, and corporations. Emphasis is placed on the application of the Internal Revenue Code to preparation of tax returns for individuals, partnerships, and corporations. Upon completion, students should be able to complete federal tax returns for individuals, partnerships, and corporations.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ACC 140** | **Payroll Accounting** | 1 | 2 | 2 |
| Prerequisites: | ACC 120 | | | |
| Corequisites: | None | | | |

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/ posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries.

| | | | | |
|---|---|---|---|---|
| **ACC 150** | **Computerized Gen Ledger** | 1 | 2 | 2 |
| Prerequisites: | ACC 120 | | | |
| Corequisites: | None | | | |

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems. This course will also introduce electronic spreadsheets and their use in accounting.

| | | | | |
|---|---|---|---|---|
| **ACC 220** | **Intermediate Accounting I** | 3 | 2 | 4 |
| Prerequisites: | ACC 121 | | | |
| Corequisites: | None | | | |

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

| | | | | |
|---|---|---|---|---|
| **ACC 221** | **Intermediate Acct II** | 3 | 2 | 4 |
| Prerequisites: | ACC 220 | | | |
| Corequisites: | None | | | |

This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

| | | | | |
|---|---|---|---|---|
| **ACC 225** | **Cost Accounting** | 3 | 0 | 3 |
| Prerequisites: | ACC 121 | | | |
| Corequisites: | None | | | |

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ACC 226** | **Managerial Accounting** | 3 | 0 | 3 |
| Prerequisites: | ACC 121 | | | |
| Corequisites: | None | | | |

This course is designed to develop an appreciation for the uses of cost information in the administration and control of business organizations. Emphasis is placed on how accounting data can be interpreted and used by management in planning and controlling business activities. Upon completion, students should be able to analyze and interpret cost information and present this information in a form that is usable by management. This course is intended for students planning to sit for professional accounting certification examinations.

| | | | | |
|---|---|---|---|---|
| **ACC 227** | **Practices in Accounting** | 3 | 0 | 3 |
| Prerequisites: | ACC 220 | | | |
| Corequisites: | None | | | |

This course provides an advanced in-depth study of selected topics in accounting using case studies and individual and group problem solving. Topics include cash flow, financial statement analysis, individual and group problem solving, practical approaches to dealing with clients, ethics, and critical thinking. Upon completion, students should be able to demonstrate competent analytical skills and effective communication of their analysis in written and/or oral presentations.

| | | | | |
|---|---|---|---|---|
| **ACC 240** | **Gov & Not-for-Profit Acct** | 3 | 0 | 3 |
| Prerequisites: | ACC 121 | | | |
| Corequisites: | None | | | |

This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

| | | | | |
|---|---|---|---|---|
| **ACC 269** | **Auditing** | 3 | 0 | 3 |
| Prerequisites: | ACC 220 | | | |
| Corequisites: | None | | | |

This course covers the overall framework of the process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

## AIR CONDITIONING, HEATING, AND REFRIGERATION

| | | | | |
|---|---|---|---|---|
| **AHR 110** | **Intro to Refrigeration** | 2 | 6 | 5 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **AHR 111** | **HVACR Electricity** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

| | | | | |
|---|---|---|---|---|
| **AHR 112** | **Heating Technology** | 2 | 4 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

| | | | | |
|---|---|---|---|---|
| **AHR 113** | **Comfort Cooling** | 2 | 4 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

| | | | | |
|---|---|---|---|---|
| **AHR 114** | **Heat Pump Technology** | 2 | 4 | 4 |
| Prerequisites: | AHR 110 or AHR 113 | | | |
| Corequisites: | None | | | |

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

| | | | | |
|---|---|---|---|---|
| **AHR 115** | **Refrigeration Systems** | 1 | 3 | 2 |
| Prerequisites: | AHR 110 | | | |
| Corequisites: | None | | | |

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

| | | | | |
|---|---|---|---|---|
| **AHR 120** | **HVACR Maintenance** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **AHR 125** | **HVAC Electronics** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | AHR 111 or ELC 111 | | | |

This course introduces the common electronic control components in HVAC systems. Emphasis is placed on identifying electronic components and their functions in HVAC systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

| | | | | |
|---|---|---|---|---|
| **AHR 130** | **HVAC Controls** | 2 | 2 | 3 |
| Prerequisites: | AHR 111 or ELC 111 | | | |
| Corequisites: | None | | | |

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analyis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

| | | | | |
|---|---|---|---|---|
| **AHR 133** | **HVAC Servicing** | 2 | 6 | 4 |
| Prerequisites: | | | | |
| Corequisites: | AHR 112 or AHR 113 | | | |

The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

| | | | | |
|---|---|---|---|---|
| **AHR 135** | **Transport Refrigeration** | 2 | 6 | 4 |
| Prerequisites: | AHR 110 | | | |
| Corequisites: | None | | | |

This course introduces the equipment and components commonly found in commercial transport refrigeration systems. Topics include compressors, evaporators, metering devices, accessories, and related electrical components. Upon completion, students should be able to safely maintain, troubleshoot, and repair transport refrigeration components.

| | | | | |
|---|---|---|---|---|
| **AHR 140** | **All-Weather Systems** | 1 | 3 | 2 |
| Prerequisites: | AHR 112 or AHR 113 | | | |
| Corequisites: | None | | | |

This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC's and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.

| | | | | |
|---|---|---|---|---|
| **AHR 151** | **HVAC Duct Systems I** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the techniques used to lay out and fabricate duct work commonly found in HVAC systems. Emphasis is placed on the skills required to fabricate duct work. Upon completion, students should be able to lay out and fabricate simple duct work.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **AHR 152** | **HVAC Duct Systems II** | 1 | 3 | 2 |
| Prerequisites: | AHR 151 | | | |
| Corequisites: | None | | | |

This course introduces the techniques used to lay out and fabricate more advanced types of duct work found in HVAC systems. Emphasis is placed on the skills required to work with complex rectangular and round fittings and transitions. Upon completion, students should be able to lay out and fabricate complex rectangular and round fittings.

| | | | | |
|---|---|---|---|---|
| **AHR 160** | **Refrigerant Certification** | 1 | 0 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

| | | | | |
|---|---|---|---|---|
| **AHR 180** | **HVACR Customer Relations** | 1 | 0 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.

| | | | | |
|---|---|---|---|---|
| **AHR 210** | **Residential Building Code** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

| | | | | |
|---|---|---|---|---|
| **AHR 211** | **Residential System Design** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

| | | Class | Lab | Credit |
|---|---|---|---|---|

## ANTHROPOLOGY

| | | | | |
|---|---|---|---|---|
| **ANT 210** | **General Anthropology** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## ART

| | | | | |
|---|---|---|---|---|
| **ART 111** | **Art Appreciation** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ART 114** | **Art History Survey I** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ART 115** | **Art History Survey II** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ART 121** | **Design I** | 1 | 4 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ART 122** | **Design II** | 1 | 4 | 3 |
| Prerequisites: | ART 121 | | | |
| Corequisites: | None | | | |

This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts.

| | | | | |
|---|---|---|---|---|
| **ART 131** | **Drawing I** | 0 | 6 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.

| | | | | |
|---|---|---|---|---|
| **ART 132** | **Drawing II** | 0 | 6 | 3 |
| Prerequisites: | ART 131 | | | |
| Corequisites: | None | | | |

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.

| | | | | |
|---|---|---|---|---|
| **ART 171** | **Computer Art I** | 1 | 4 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images.

| | | | | |
|---|---|---|---|---|
| **ART 191** | **Selected Topics in Art** | 0-1 | 0-3 | 1 |
| Prerequisites: | Enrollment in the program | | | |
| Corequisites: | None | | | |

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

| | | | | |
|---|---|---|---|---|
| **ART 193** | **Selected Topics in Art** | 1-3 | 0-6 | 3 |
| Prerequisites: | Enrollment in the program | | | |
| Corequisites: | None | | | |

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

| | | | | |
|---|---|---|---|---|
| **ART 231** | **Printmaking I** | 0 | 6 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ART 240** | **Painting I** | 0 | 6 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.

| | | | | |
|---|---|---|---|---|
| **ART 241** | **Painting II** | 0 | 6 | 3 |
| Prerequisites: | ART 240 | | | |
| Corequisites: | None | | | |

This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety.

| | | | | |
|---|---|---|---|---|
| **ART 244** | **Watercolor** | 0 | 6 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media.

| | | | | |
|---|---|---|---|---|
| **ART 281** | **Sculpture I** | 0 | 6 | 3 |
| Prerequisites: | ART 122 | | | |
| Corequisites: | None | | | |

This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in variety of sculptural approaches.

| | | | | |
|---|---|---|---|---|
| **ART 282** | **Sculpture II** | 0 | 6 | 3 |
| Prerequisites: | ART 281 | | | |
| Corequisites: | None | | | |

This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture.

| | | | | |
|---|---|---|---|---|
| **ART 283** | **Ceramics I** | 0 | 6 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ART 284** | **Ceramics II** | 0 | 6 | 3 |
| Prerequisites: | ART 283 | | | |
| Corequisites: | None | | | |

This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness.

| | | | | |
|---|---|---|---|---|
| **ART 288** | **Studio** | 0 | 6 | 3 |
| Prerequisites: | Limited to those who have completed a sequence of art courses in the proposed area of study. | | | |
| Corequisites: | None | | | |

This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques.

| | | | | |
|---|---|---|---|---|
| **ART 289** | **Museum Study** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces research methods in the museum setting. Emphasis is placed on the chronology, styles, periods, context, and meaning in art. Upon completion, students should be able to demonstrate the advantage of first-hand and on-site research.

| | | | | |
|---|---|---|---|---|
| **ART 293** | **Selected Topics in Art** | 1-3 | 0-6 | 3 |
| Prerequisites: | Enrollment in the program | | | |
| Corequisites: | None | | | |

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

## BIOLOGY

| | | | | |
|---|---|---|---|---|
| **BIO 111** | **General Biology I** | 3 | 3 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **BIO 112** | **General Biology II** | 3 | 3 | 4 |
| Prerequisites: | BIO 111 | | | |
| Corequisites: | None | | | |

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathemaitics.*

| | | | | |
|---|---|---|---|---|
| **BIO 130** | **Introductory Zoology** | 3 | 3 | 4 |
| Prerequisites: | BIO 111 | | | |
| Corequisites: | None | | | |

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development comparative systems, and survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **BIO 140** | **Environmental Biology** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **BIO 140A** | **Environmental Biology Lab** | 0 | 3 | 1 |
| Prerequisites: | | | | |
| Corequisites: | BIO 140 | | | |

This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **BIO 163** | **Basic Anat & Physiology** | 4 | 2 | 5 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **BIO 168** | **Anatomy and Physiology I** | 3 | 3 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, nervous, special senses, and endocrine systems. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

| | | | | |
|---|---|---|---|---|
| **BIO 169** | **Anatomy and Physiology II** | 3 | 3 | 4 |
| Prerequisites: | BIO 168 | | | |
| Corequisites: | None | | | |

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

| | | | | |
|---|---|---|---|---|
| **BIO 170** | **Introductory Microbiology** | 3 | 3 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces fundamental concepts of microbiology with emphasis on the relationships of microorganisms to humans. Topics include common groups of microorganisms and their relationships to human disease, including means of transmission, body defenses, prevention, control, and treatment. Upon completion, students should be able to practice and recognize the value of aseptic technique in microbial control.

| | | | | |
|---|---|---|---|---|
| **BIO 275** | **Microbiology** | 3 | 3 | 4 |
| Prerequisites: | BIO 111, BIO 112, BIO 163, or BIO 168 | | | |
| Corequisites: | None | | | |

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.

## BLUEPRINT READING

| | | | | |
|---|---|---|---|---|
| **BPR 111** | **Blueprint Reading** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **BPR 121** | **Blueprint Reading: Mech** | 1 | 2 | 2 |
| Prerequisites: | BPR 111 | | | |
| Corequisites: | None | | | |

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

| | | | | |
|---|---|---|---|---|
| **BPR 130** | **Blueprint Reading/Const** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

| | | | | |
|---|---|---|---|---|
| **BPR 135** | **Schematics & Diagrams** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces schematics and diagrams used in a variety of occupations. Topics include interpretation of wiring diagrams, assembly drawings, exploded views, sectional drawings, and service manuals, specifications, and charts. Upon completion, students should be able to research and locate components and assemblies denoting factory specifications and requirements from service and repair manuals.

## BUSINESS

| | | | | |
|---|---|---|---|---|
| **BUS 110** | **Introduction to Business** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

| | | | | |
|---|---|---|---|---|
| **BUS 115** | **Business Law I** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

| | | | | |
|---|---|---|---|---|
| **BUS 116** | **Business Law II** | 3 | 0 | 3 |
| Prerequisites: | BUS 115 | | | |
| Corequisites: | None | | | |

This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **BUS 121** | **Business Math** | 2 | 2 | 3 |

Prerequisites:
Corequisites: None

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

| | | | | |
|---|---|---|---|---|
| **BUS 135** | **Principles of Supervision** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the basic responsibilities and duties of the supervisor and his/her relationship to higher-level supervisors, subordinates, and associates. Emphasis is placed on effective utilization of the work force and understanding the role of the supervisor. Upon completion, students should be able to apply supervisory principles in the work place.

| | | | | |
|---|---|---|---|---|
| **BUS 137** | **Principles of Management** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

| | | | | |
|---|---|---|---|---|
| **BUS 147** | **Business Insurance** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course surveys the basic concepts of risk management. Topics include principles and applications of health, property, life, and casualty insurance. Upon completion, students should be able to evaluate different insurance needs and assist an organization in acquiring adequate insurance coverage.

| | | | | |
|---|---|---|---|---|
| **BUS 152** | **Human Relations** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the concepts of effective human interaction in the business work environment. Topics include effective communication techniques, motivation, ego states, stress, and conflict. Upon completion, students should be able to explain the importance of human relations, apply motivational techniques, and implement strategies for resolving work-related conflicts.

| | | | | |
|---|---|---|---|---|
| **BUS 153** | **Human Resource Management** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **BUS 225** | **Business Finance** | 2 | 2 | 3 |
| Prerequisites: | ACC 120 | | | |
| Corequisites: | None | | | |

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

| | | | | |
|---|---|---|---|---|
| **BUS 230** | **Small Business Management** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

| | | | | |
|---|---|---|---|---|
| **BUS 231** | **Computerized Inventory** | 2 | 2 | 3 |
| Prerequisites: | ACC 120 and CIS 110 | | | |
| Corequisites: | None | | | |

This course provides an overview of inventory procedures as related to management decisions. Emphasis is placed on general terms, methods, techniques, and computer applications. Upon completion, students should be able to apply inventory principles and processes in the workplace.

| | | | | |
|---|---|---|---|---|
| **BUS 235** | **Performance Management** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course includes the legal background for performance management and the basic methodology used in developing and validating a performance management system. Emphasis is placed on job analysis, job descriptions, appraisal instruments, and action plans. Upon completion, students should be able to develop, implement, and maintain a comprehensive performance management system.

| | | | | |
|---|---|---|---|---|
| **BUS 239** | **Bus Applications Seminar** | 1 | 2 | 2 |
| Prerequisites: | ACC 120, BUS 115, BUS 137, MKT 120, and either ECO 251 or 252 | | | |
| Corequisites: | None | | | |

This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place.

| | | | | |
|---|---|---|---|---|
| **BUS 252** | **Labor Relations** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the history of the organized labor movement and the contractual relationship between corporate management and employees represented by a union. Topics include labor laws and unfair labor practices, the role of the NLRB, organizational campaigns, certification/decertification elections, and grievance procedures. Upon completion, students should be able to act in a proactive and collaborative manner in an environment where union representation exists.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **BUS 253** | **Leadership and Mgt Skills** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness.

| | | | | |
|---|---|---|---|---|
| **BUS 260** | **Business Communication** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 and OST 131 | | | |
| Corequisites: | None | | | |

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

| | | | | |
|---|---|---|---|---|
| **BUS 270** | **Professional Development** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides basic knowledge of self-improvement techniques as related to success in the professional world. Topics include positive human relations, job-seeking skills, and projecting positive self-image. Upon completion, students should be able to demonstrate competent personal and professional skills necessary to get and keep a job.

## CHEMISTRY

| | | | | |
|---|---|---|---|---|
| **CHM 130** | **Gen, Org, & Biochemistry** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts.

| | | | | |
|---|---|---|---|---|
| **CHM 130A** | **Gen, Org, & Biochemistry Lab** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | CHM 130 | | | |

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130.

| | | | | |
|---|---|---|---|---|
| **CHM 151** | **General Chemistry I** | 3 | 3 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **CHM 152** | **General Chemistry II** | 3 | 3 | 4 |
| Prerequisites: | CHM 151 | | | |
| Corequisites: | None | | | |

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. *This course has been approved to satisfy the Comprhensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

## INFORMATION SYSTEMS

| | | | | |
|---|---|---|---|---|
| **CIS 110** | **Introduction to Computers** | 2 | 2 | 3 |
| Prerequisites: | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

This course provides an introduction to computers and computing. Topics include the impact of computers on society, ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

| | | | | |
|---|---|---|---|---|
| **CIS 115** | **Intro to Prog & Logic** | 2 | 2 | 3 |
| Prerequisites: | MAT 070, RED 080, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.

| | | | | |
|---|---|---|---|---|
| **CIS 120** | **Spreadsheet I** | 2 | 2 | 3 |
| Prerequisites: | CIS 110 | | | |
| Corequisites: | None | | | |

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

| | | | | |
|---|---|---|---|---|
| **CIS 130** | **Survey of Operating Sys** | 2 | 3 | 3 |
| Prerequisites: | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **CIS 147** | **Operating System - Windows™** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | CIS 130 | | | |

This course introduces operating systems concepts for a Windows™ operating system. Topics include hardware management, file and memory management, system configuration/ optimization, and utilities. Upon completion, students should be able to perform operating system functions at the support level in a Windows™ environment.

| | | | | |
|---|---|---|---|---|
| **CIS 152** | **Database Concepts & Apps** | 2 | 2 | 3 |
| Prerequisites: | CIS 110 or CIS 115 | | | |
| Corequisites: | None | | | |

This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices.

| | | | | |
|---|---|---|---|---|
| **CIS 164** | **DTP Layout & Design** | 2 | 2 | 3 |
| Prerequisites: | OST 134, CIS 110 | | | |
| Corequisites: | None | | | |

This course introduces the fundamentals of design and page layout. Emphasis is placed on page layout organization, typography, and color. Upon completion, students should be able to create projects that visually enhance communication.

| | | | | |
|---|---|---|---|---|
| **CIS 172** | **Intro to the Internet** | 2 | 3 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, listservers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools.

## CRIMINAL JUSTICE

| | | | | |
|---|---|---|---|---|
| **CJC 100** | **Basic Law Enforcement Trn** | 9 | 27 | 18 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Emphasis is placed on topics and areas as defined by the North Carolina Administrative Code. Upon completion, students should be able to demonstrate competence in the topics and areas required for the state comprehensive examination. *This is a certificate-level course.*

| | | | | |
|---|---|---|---|---|
| **CJC 111** | **Intro to Criminal Justice** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **CJC 112** | **Criminology** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

| | | | | |
|---|---|---|---|---|
| **CJC 113** | **Juvenile Justice** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/ procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

| | | | | |
|---|---|---|---|---|
| **CJC 121** | **Law Enforcement Operations** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.

| | | | | |
|---|---|---|---|---|
| **CJC 131** | **Criminal Law** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

| | | | | |
|---|---|---|---|---|
| **CJC 132** | **Court Procedure & Evidence** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

| | | | | |
|---|---|---|---|---|
| **CJC 141** | **Corrections** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **CJC 151** | **Intro to Loss Prevention** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.

| | | | | |
|---|---|---|---|---|
| **CJC 212** | **Ethics & Comm Relations** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

| | | | | |
|---|---|---|---|---|
| **CJC 215** | **Organization & Administration** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

| | | | | |
|---|---|---|---|---|
| **CJC 221** | **Investigative Principles** | 3 | 2 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

| | | | | |
|---|---|---|---|---|
| **CJC 222** | **Criminalistics** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **CJC 225** | **Crisis Intervention** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.

| | | | | |
|---|---|---|---|---|
| **CJC 231** | **Constitutional Law** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/ procedures as interpreted by the courts.

| | | | | |
|---|---|---|---|---|
| **CJC 241** | **Community-Based Corrections** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

## COOPERATIVE EDUCATION

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **COE 110** | **World of Work** | 1 | 0 | 0 | 1 |

Prerequisites:
Corequisites:

This course covers basic knowledge necessary for gaining and maintaining employment. Topics include job search skills, work ethic, meeting employer expectations, workplace safety, and human relations. Upon completion, students should be able to successfully make the transition from school to work.

| | | | | | |
|---|---|---|---|---|---|
| **COE 111** | **Co-op Work Experience I** | 0 | 0 | 10 | 1 |

Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **COE 112** | **Co-op Work Experience I** | 0 | 0 | 20 | 2 |

Prerequisites:
Corequisites:

This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

| | | | | | |
|---|---|---|---|---|---|
| **COE 115** | **Work Exp Seminar I** | 1 | 0 | 0 | 1 |

Prerequisites:
Corequisites: COE 111 or COE 112,

This course provides procedures necessary for the Co-op student to receive maximum benefit from his/her work experience. Emphasis is placed on the student/employer/advisor relationship and the evaluation process of the experience used to show accountability. Upon completion the student will be totally aware of the Co-op benefit and process.

| | | | | | |
|---|---|---|---|---|---|
| **COE 121** | **Co-op Work Experience II** | 0 | 0 | 10 | 1 |

Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

| | | | | | |
|---|---|---|---|---|---|
| **COE 122** | **Co-op Work Experience II** | 0 | 0 | 20 | 2 |

Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

| | | | | | |
|---|---|---|---|---|---|
| **COE 131** | **Co-op Work Experience III** | 0 | 0 | 10 | 1 |

Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

| | | | | | |
|---|---|---|---|---|---|
| **COE 132** | **Co-op Work Experience III** | 0 | 0 | 20 | 2 |

Prerequisites:
Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

## COMMUNICATION

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **COM 120** | **Interpersonal Communication** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. This course will include the preparation and delivery of well-organized speeches. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.*

| | | | | |
|---|---|---|---|---|
| **COM 231** | **Public Speaking** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in speech/communication.*

## COSMETOLOGY

| | | | | |
|---|---|---|---|---|
| **COS 111** | **Cosmetology Concepts I** | 4 | 0 | 4 |

Prerequisites:
Corequisites: COS 112

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

| | | | | |
|---|---|---|---|---|
| **COS 111A** | **Cosmetology Concepts IA** | 2 | 0 | 2 |
| **COS 111B** | **Cosmetology Concepts IB** | 2 | 0 | 2 |

| | | | | |
|---|---|---|---|---|
| **COS 112** | **Salon I** | 0 | 24 | 8 |

Prerequisites:
Corequisites: COS 111

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

| | | | | |
|---|---|---|---|---|
| **COS 112A** | **Salon IA** | 0 | 12 | 4 |
| **COS 112B** | **Salon IB** | 0 | 12 | 4 |

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **COS 113** | **Cosmetology Concepts II** | 4 | 0 | 4 |
| Prerequisites: | COS 111 and COS 112 | | | |
| Corequisites: | COS 114 | | | |

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

| | | | | |
|---|---|---|---|---|
| **COS 114** | **Salon II** | 0 | 24 | 8 |
| Prerequisites: | COS 112 | | | |
| Corequisites: | COS 113 | | | |

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

| | | | | |
|---|---|---|---|---|
| **COS 115** | **Cosmetology Concepts III** | 4 | 0 | 4 |
| Prerequisites: | COS 111 and COS 112 | | | |
| Corequisites: | COS 116 | | | |

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

| | | | | |
|---|---|---|---|---|
| **COS 116** | **Salon III** | 0 | 12 | 4 |
| Prerequisites: | | | | |
| Corequisites: | COS 115 | | | |

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

| | | | | |
|---|---|---|---|---|
| **COS 120** | **Esthetics** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the concepts and techniques of esthetics. Topics include safety, skin care, make-up, aromatherapy, massage, and superfluous hair removal. Upon completion, students should be able to perform professional skin care and make-up services.

| | | | | |
|---|---|---|---|---|
| **COS 123** | **Contemp Hair Coloring** | 1 | 3 | 2 |
| Prerequisites: | COS 111 and COS 112 | | | |
| Corequisites: | None | | | |

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **COS 124** | **Trichology & Chemistry** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

| | | | | |
|---|---|---|---|---|
| **COS 140** | **Contemporary Design** | 1 | 3 | 2 |
| Prerequisites: | COS 111 and COS 112 | | | |
| Corequisites: | None | | | |

This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

| | | | | |
|---|---|---|---|---|
| **COS 160** | **Design Applications** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides an overview of the design concepts used in cosmetology. Topics include the application of art principles and elements to artistically design hair, nails, and make-up and other related topics. Upon completion, students should be able to demonstrate knowledge and techniques associated with design concepts.

## COMPUTER SCIENCE

| | | | | |
|---|---|---|---|---|
| **CSC 132** | **BASIC Programming** | 2 | 3 | 3 |
| Prerequisites: | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

This course is designed to introduce computer programming using the BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/ tables, and other related topics. Upon completion, students should be able to design, code, test, and debug BASIC language programs. Visual Basic will be used in this class.

| | | | | |
|---|---|---|---|---|
| **CSC 134** | **C++ Programming** | 2 | 3 | 3 |
| Prerequisites: | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs.

| | | | | |
|---|---|---|---|---|
| **CSC 135** | **COBOL Programming** | 2 | 3 | 3 |
| Prerequisites: | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

This course introduces computer programming using the COBOL programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug COBOL language programs.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **CSC 138** | **RPG Programming** | 2 | 3 | 3 |
| Prerequisites: | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisites: | None | | | |

This course introduces computer programming using the RPG programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays/tables, and other related topics. Upon completion, students should be able to design, code, test, and debug RPG language programs.

| | | | | |
|---|---|---|---|---|
| **CSC 143** | **Object Oriented Programming** | 2 | 3 | 3 |
| Prerequisite | RED 080, MAT 070, OST 080 or satisfactory scores on placement tests | | | |
| Corequisite: | None | | | |

This course introduces the concepts of object-oriented programming. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, test, debug, and implement objects at the application level using the appropriate environment. This course is a unique concentration requirement of the Programming Concentration in the Information Systems program.

| | | | | |
|---|---|---|---|---|
| **CSC 232** | **Advanced BASIC** | 2 | 3 | 3 |
| Prerequisites: | CSC 132 | | | |
| Corequisites: | None | | | |

This course is a continuation of CSC 132 using BASIC with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. This course is a unique concentration requirement in the Programming concentration in the Information Systems program. Visual Basic will be used in this class.

| | | | | |
|---|---|---|---|---|
| **CSC 235** | **Advanced COBOL** | 2 | 3 | 3 |
| Prerequisites: | CSC 135 | | | |
| Corequisites: | None | | | |

This course is a continuation of CSC 135 using COBOL with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. This course is a unique concentration requirement in the Programming concentration in the Information Systems program.

| | | | | |
|---|---|---|---|---|
| **CSC 238** | **Advanced RPG** | 2 | 3 | 3 |
| Prerequisites: | CSC 138 | | | |
| Corequisites: | None | | | |

This course is a continuation of CSC 138 using RPG with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions. This course is a unique concentration requirement in the Programming concentration in the Information Systems program.

## DEVELOPMENTAL DISABILITIES

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **DDT 110** | **Developmental Disabilities** | 3 | 0 | 0 | 3 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course identifies the characteristics and causes of various disabilities. Topics include history of service provision, human rights, legislation and litigation, advocacy, and accessing support services. Upon completion, students should be able to demonstrate an understanding of current and historical developmental disability definitions and support systems used throughout the life span.

## DRAFTING

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **DFT 111** | **Technical Drafting I** | 2 | 6 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorials drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

| | | | | |
|---|---|---|---|---|
| **DFT 112** | **Technical Drafting II** | 2 | 6 | 4 |
| Prerequisites: | DFT 111 | | | |
| Corequisites: | None | | | |

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings. All drawings will be produced by computer using CAD software.

| | | | | |
|---|---|---|---|---|
| **DFT 119** | **Basic CAD** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.

| | | | | |
|---|---|---|---|---|
| **DFT 121** | **Intro to GD & T** | 1 | 2 | 2 |
| Prerequisites: | DFT 111 | | | |
| Corequisites: | None | | | |

This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings. All drawings will be produced by computer using CAD software.

| | | | | |
|---|---|---|---|---|
| **DFT 151** | **CAD I** | 2 | 3 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **DFT 152** | **CAD II** | 2 | 3 | 3 |
| Prerequisites: | DFT 151 | | | |
| Corequisites: | None | | | |

This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

| | | | | |
|---|---|---|---|---|
| **DFT 153** | **CAD III** | 2 | 3 | 3 |
| Prerequisites: | DFT 111 and DFT 151 | | | |
| Corequisites: | None | | | |

This course covers basic principles of three-dimensional CAD wireframe and surface models. Topics include user coordinate systems, three-dimensional viewpoints, three-dimensional wireframes, and surface components and viewpoints. Upon completion, students should be able to create and manipulate three-dimensional wireframe and surface models.

| | | | | |
|---|---|---|---|---|
| **DFT 170** | **Engineering Graphics** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces basic engineering graphics skills, equipment, and applications (manual and computer-aided). Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, and sectional and auxiliary views. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices.

| | | | | |
|---|---|---|---|---|
| **DFT 211** | **Gears, Cams, & Pulleys** | 1 | 3 | 2 |
| Prerequisites: | DFT 111 and MAT 121 | | | |
| Corequisites: | None | | | |

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios. All drawings will be produced by computer using CAD software.

| | | | | |
|---|---|---|---|---|
| **DFT 214** | **Descriptive Geometry** | 1 | 2 | 2 |
| Prerequisites: | DFT 111 | | | |
| Corequisites: | None | | | |

This course includes a graphic analysis of space problems. Topics include points, lines, planes, connectors, and combinations of these. Upon completion, students should be able to solve real world spatial problems using descriptive geometry techniques. All drawings will be produced by computer using CAD software.

| | | | | |
|---|---|---|---|---|
| **DFT 231** | **Jig & Fixture Design** | 1 | 2 | 2 |
| Prerequisites: | DFT 112 and MEC 210, MEC 250 or MEC 252 | | | |
| Corequisites: | None | | | |

This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture. All drawings will be produced by computer using CAD software.

## ECONOMICS

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ECO 251** | **Prin of Microeconomics** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **ECO 252** | **Prin of Macroeconomics** | 3 | 0 | 3 |
| Prerequisites: | ECO 251 | | | |
| Corequisites: | None | | | |

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## EDUCATION

| | | | | |
|---|---|---|---|---|
| **EDU 111** | **Early Childhood Cred I** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.

| | | | | |
|---|---|---|---|---|
| **EDU 112** | **Early Childhood Cred II** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

| | | | | |
|---|---|---|---|---|
| **EDU 131** | **Child, Family, & Commun** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **EDU 144** | **Child Development I** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers the theories of child development and the developmental sequences of children from conception through the pre-school years for early childhood educators. Emphasis is placed on sequences in physical/motor, social, emotional, cognitive, and language development and appropriate experiences for the young child. Upon completion, students should be able to identify developmental milestones, plan experiences to enhance development, and describe appropriate interaction techniques and environments for typical/atypical development.

| | | | | |
|---|---|---|---|---|
| **EDU 145** | **Child Development II** | 3 | 0 | 3 |

Prerequisites: EDU 144
Corequisites: None

This course covers theories of child development and developmental sequences of children from pre-school through middle childhood for early childhood educators. Emphasis is placed on characteristics of physical/motor, social, emotional, and cognitive/language development and appropriate experiences for children. Upon completion, students should be able to identify developmental characteristics, plan experiences to enhance development, and describe appropriate interaction techniques and environments.

| | | | | |
|---|---|---|---|---|
| **EDU 146** | **Child Guidance** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

| | | | | |
|---|---|---|---|---|
| **EDU 151** | **Creative Activities** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasis is placed on creative activities for children in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to select and evaluate developmentally appropriate learning materials and activities.

| | | | | |
|---|---|---|---|---|
| **EDU 151A** | **Creative Activities Lab** | 0 | 2 | 1 |

Prerequisites:
Corequisites: EDU 151

This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

| | | | | |
|---|---|---|---|---|
| **EDU 152** | **Music, Movement, & Lang** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces a historical perspective of music and movement and integrates the whole language concept with emphasis on diversity. Emphasis is placed on designing an environment that emphasizes language development through developmentally and culturally appropriate music and movement. Upon completion, students should be able to design an environment that develops language through a music and movement curriculum that emphasizes diversity.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **EDU 152A** | **Music, Move, & Lang Lab** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | EDU 152 | | | |

This course provides a laboratory component to complement EDU 152. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate music, movement, and language activities.

| | | | | |
|---|---|---|---|---|
| **EDU 153** | **Health, Safety, & Nutrition** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course focuses on promoting and maintaining the health and well-being of children. Topics include health and nutritional needs, safe and healthy environments, and recognition and reporting of child abuse and neglect. Upon completion, students should be able to set up and monitor safe indoor and outdoor environments and implement a nutrition education program.

| | | | | |
|---|---|---|---|---|
| **EDU 153A** | **Health, Safety, & Nut Lab** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | EDU 153 | | | |

This course provides a laboratory component to complement EDU 153. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of safe indoor/ outdoor environments and nutrition education programs.

| | | | | |
|---|---|---|---|---|
| **EDU 221** | **Children with Sp Needs** | 3 | 0 | 3 |
| Prerequisites: | EDU 144 and EDU 145 or PSY 244 and PSY 245 | | | |
| Corequisites: | None | | | |

This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

| | | | | |
|---|---|---|---|---|
| **EDU 234** | **Infants, Toddlers, & Twos** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

| | | | | |
|---|---|---|---|---|
| **EDU 252** | **Math & Sci Activities** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces discovery experiences in math and science. Topics include concepts, facts, phenomena, and skills in each area. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate developmentally appropriate curriculum materials.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **EDU 252A** | **Math & Sci Act Lab** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | EDU 252 | | | |

This course provides a laboratory component to complement EDU 252. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate math and science activities.

| | | | | |
|---|---|---|---|---|
| **EDU 259** | **Curriculum Planning** | 3 | 0 | 3 |
| Prerequisites: | EDU 112, EDU 113, or EDU 119 | | | |
| Corequisites: | None | | | |

This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

| | | | | |
|---|---|---|---|---|
| **EDU 261** | **Early Childhood Admin I** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

| | | | | |
|---|---|---|---|---|
| **EDU 262** | **Early Childhood Admin II** | 3 | 0 | 3 |
| Prerequisites: | EDU 261 | | | |
| Corequisites: | None | | | |

This course provides a foundation for budgetary, financial, and personnel management of the child care center. Topics include budgeting, financial management, marketing, hiring, supervision, and professional development of a child care center. Upon completion, students should be able to formulate marketing, financial management, and fund development plans and develop personnel policies, including supervision and staff development plans.

| | | | | |
|---|---|---|---|---|
| **EDU 282** | **Early Childhood Lit** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the history, selection, and integration of literature and language in the early childhood curriculum. Topics include the history and selection of developmentally appropriate children's literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use, and other techniques.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **EDU 288** | **Adv Issues/Early Child Ed** | 2 | 0 | 2 |

Prerequisites:
Corequisites: None

This course covers advanced topics and issues in early childhood. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues in early childhood education.

## ELECTRIC LINEMAN TECHNOLOGY

| | | | | |
|---|---|---|---|---|
| **ELT 112** | **National Electrical Safety Code** | 2 | 2 | 3 |

Prerequisites:
Corequisites: None

This course covers the use of the current National Electrical Safety Code. Topics will include NESC history, electrical terms, electrical power systems, construction of overhead and underground distribution, transmission lines, materials used, and maintenance procedures. The course will also cover an overview of the meter side of the NEC. Upon completion, students would be able to effectively use the NESC.

## ELECTRICITY

| | | | | |
|---|---|---|---|---|
| **ELC 111** | **Intro to Electricity** | 2 | 2 | 3 |

Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/ electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); poser; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

| | | | | |
|---|---|---|---|---|
| **ELC 112** | **DC/AC Electricity** | 3 | 6 | 5 |

Prerequisites:
Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

| | | | | |
|---|---|---|---|---|
| **ELC 113** | **Basic Wiring I** | 2 | 6 | 4 |

Prerequisites:
Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ELC 114** | **Basic Wiring II** | 2 | 6 | 4 |
| Prerequisites: | ELC 113 | | | |
| Corequisites: | None | | | |

This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

| | | | | |
|---|---|---|---|---|
| **ELC 115** | **Industrial Wiring** | 2 | 6 | 4 |
| Prerequisites: | ELC 113 | | | |
| Corequisites: | None | | | |

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

| | | | | |
|---|---|---|---|---|
| **ELC 117** | **Motors and Controls** | 2 | 6 | 4 |
| Prerequisites: | ELC 112 or ELC 131 | | | |
| Corequisites: | None | | | |

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

| | | | | |
|---|---|---|---|---|
| **ELC 118** | **National Electrical Code** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

| | | | | |
|---|---|---|---|---|
| **ELC 119** | **NEC Calculations** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

| | | | | |
|---|---|---|---|---|
| **ELC 121** | **Electrical Estimating** | 1 | 2 | 2 |
| Prerequisites: | ELC 113 | | | |
| Corequisites: | None | | | |

This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ELC 125** | **Diagrams and Schematics** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

| | | | | |
|---|---|---|---|---|
| **ELC 126** | **Electrical Computations** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the fundamental applications of mathematics which are used by an electrical/ electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.

| | | | | |
|---|---|---|---|---|
| **ELC 127** | **Software for Technicians** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations, applications, and controls. Upon completion, students should be able to utilize a personal computer for electrical/electronics- related applications.

| | | | | |
|---|---|---|---|---|
| **ELC 128** | **Intro to PLC** | 2 | 3 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/ installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

| | | | | |
|---|---|---|---|---|
| **ELC 131** | **DC/AC Circuit Analysis** | 4 | 3 | 5 |
| Prerequisites: | | | | |
| Corequisites: | MAT 121 | | | |

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

| | | | | |
|---|---|---|---|---|
| **ELC 132** | **Electrical Drawings** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the technical documentation that is typically found or used in the industrial environment. Topics include interpretation of service manuals, freehand sketching of lines, orthographic views and dimensions, and blueprint reading. Upon completion, students should be able to interpret technical documents and blueprints and use basic drafting skills to prepare usable field drawings.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ELC 133** | **Adv Circuit Analysis** | 2 | 3 | 3 |
| Prerequisites: | ELC 131 | | | |
| Corequisites: | None | | | |

This course covers additional concepts of DC/AC electricity, the use of test equipment, and measurement techniques for electrical/electronics majors. Topics include the application of network theorems such as delta/wye transformations, Superposition Theorem, and other advanced circuit analysis principles. Upon completion, students should be able to construct and analyze DC/AC circuits used advanced circuit analysis theorems, circuit simulators, and test equipment.

| | | | | |
|---|---|---|---|---|
| **ELC 135** | **Electrical Machines I** | 2 | 2 | 3 |
| Prerequisites: | ELC 112, ELC 131, or ELC 140 | | | |
| Corequisites: | None | | | |

This course covers magnetic circuits, transformers, DC/AC generators, and a review of the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and generator regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC single- and three-phase transformer and generator circuits.

| | | | | |
|---|---|---|---|---|
| **ELC 215** | **Electrical Maintenance** | 2 | 3 | 3 |
| Prerequisites: | ELC 117 | | | |
| Corequisites: | None | | | |

This course introduces the theory of maintenance and the skills necessary to maintain electrical equipment found in industrial and commercial facilities. Topics include maintenance theory, predictive and preventive maintenance, electrical equipment operation and maintenance, and maintenance documentation. Upon completion, students should be able to perform maintenance on electrical equipment in industrial and commercial facilities.

| | | | | |
|---|---|---|---|---|
| **ELC 228** | **PLC Applications** | 2 | 6 | 4 |
| Prerequisites: | ELC 128 | | | |
| Corequisites: | None | | | |

This course continues the study of the programming and applications of programmable logic controllers. Emphasis is placed on advanced programming, networking, advanced I/O modules, reading and interpreting error codes, and troubleshooting. Upon completion, students should be able to program and troubleshoot programmable logic controllers.

| | | | | |
|---|---|---|---|---|
| **ELC 229** | **Applications Project** | 1 | 3 | 2 |
| Prerequisites: | ELC 112, ELC 113 or ELC 140 | | | |
| Corequisites: | None | | | |

This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

## ELECTRONICS

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ELN 131** | **Electronic Devices** | 3 | 3 | 4 |
| Prerequisites: | ELC 112 or ELC 131 | | | |
| Corequisites: | None | | | |

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components . Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

| | | | | |
|---|---|---|---|---|
| **ELN 132** | **Linear IC Applications** | 3 | 3 | 4 |
| Prerequisites: | ELN 131 | | | |
| Corequisites: | None | | | |

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

| | | | | |
|---|---|---|---|---|
| **ELN 133** | **Digital Electronics** | 3 | 3 | 4 |
| Prerequisites: | ELC 131, ELC 112, or ELC 131 | | | |
| Corequisites: | None | | | |

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

| | | | | |
|---|---|---|---|---|
| **ELN 135** | **Electronic Circuits** | 2 | 3 | 3 |
| Prerequisites: | ELN 131 | | | |
| Corequisites: | None | | | |

This course covers discrete component amplifiers, power supplies, wave-shaping, oscillators, and special purpose ICs. Topics include feedback, analog arithmetic circuits, current and voltage sources, amplifiers, timers, PLLs, filters, regulators, and other related circuits. Upon completion, students should be able to determine, by the configuration, the function of common analog circuits and troubleshoot circuits based on service information.

| | | | | |
|---|---|---|---|---|
| **ELN 143** | **Television Servicing** | 4 | 6 | 6 |
| Prerequisites: | ELN 140 | | | |
| Corequisites: | None | | | |

This course provides a detailed study of the operation and repair of television receiver systems. Topics include operation, alignment, and repair of television receiver systems. Upon completion, students should be able to troubleshoot, maintain, and repair television receiver systems.

| | | | | |
|---|---|---|---|---|
| **ELN 152** | **Fabrication Techniques** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the fabrication methods required to create a prototype product from the initial circuit design. Topics include CAD, layout, sheet metal working, component selection, wire wrapping, PC board layout and construction, reverse engineering, soldering, and other related topics. Upon completion, students should be able to design and construct an electronic product with all its associated documentation.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ELN 229** | **Industrial Electronics** | 2 | 4 | 4 |
| Prerequisites: | ELC 112 or ELC 131 | | | |
| Corequisites: | None | | | |

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

| | | | | |
|---|---|---|---|---|
| **ELN 231** | **Industrial Controls** | 2 | 3 | 3 |
| Prerequisites: | ELC 112 or ELC 131 | | | |
| Corequisites: | None | | | |

This course introduces the fundamental concepts of solid-state control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret ladder diagrams and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

| | | | | |
|---|---|---|---|---|
| **ELN 232** | **Intro to Microprocessors** | 3 | 3 | 4 |
| Prerequisites: | ELN 133 | | | |
| Corequisites: | None | | | |

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

| | | | | |
|---|---|---|---|---|
| **ELN 234** | **Communication Systems** | 3 | 3 | 4 |
| Prerequisites: | ELN 132 | | | |
| Corequisites: | None | | | |

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

| | | | | |
|---|---|---|---|---|
| **ELN 236** | **Fiber Optics and Lasers** | 3 | 2 | 4 |
| Prerequisites: | ELN 234 | | | |
| Corequisites: | None | | | |

This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals.

| | | | | |
|---|---|---|---|---|
| **ELN 244** | **Computer Repair** | 3 | 6 | 5 |
| Prerequisites: | ELN 133 | | | |
| Corequisites: | None | | | |

This course covers the assembly, upgrading, and repair of microcomputers. Topics include logic test equipment, computer motherboards, storage devices, I/O devices, power supplies, and other peripherals. Upon completion, students should be able to assemble, upgrade, maintain, troubleshoot, and repair microcomputers.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ELN 260** | **Prog Logic Controllers** | 3 | 3 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides a detailed study of PLC applications, with a focus on design of industrial control circuits using the PLC. Topics include PLC components, memory organization, math instructions, programming documentation, input/output devices, and applying PLCs in the design of industrial control systems. Upon completion, students should be able to design and program a PLC system to perform a wide variety of industrial control functions.

| | | | | |
|---|---|---|---|---|
| **ELN 275** | **Troubleshooting** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | ELN 133 | | | |

This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications.

## ENGLISH

| | | | | |
|---|---|---|---|---|
| **ENG 080** | **Writing Foundations** | 3 | 2 | 4 |
| Prerequisites: | ENG 070 or Satisfactory Placement Test Score | | | |
| Corequisites: | None | | | |

This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, reflecting standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. *This course does not satisfy the developmental reading and writing prerequisite for ENG 111.*

| | | | | |
|---|---|---|---|---|
| **ENG 090** | **Composition Strategies** | 3 | 0 | 3 |
| Prerequisites: | ENG 080 | | | |
| Corequisites: | None | | | |

This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. *This course satisfies the developmental writing requirement for ENG 111.*

| | | | | |
|---|---|---|---|---|
| **ENG 102** | **Applied Communications II** | 3 | 0 | 3 |
| Prerequisites: | Satisfactory placement test score or ENG 080 | | | |
| Corequisites: | None | | | |

This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and reports and developing interpersonal communication skills with employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral communications. *This is a diploma-level course.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ENG 111** | **Expository Writing** | 3 | 0 | 3 |
| Prerequisites: | ENG 090, RED 090, and OST 080 or Satisfactory Placement Test scores | | | |
| Corequisites: | None | | | |

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

| | | | | |
|---|---|---|---|---|
| **ENG 112** | **Argument-Based Research** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

| | | | | |
|---|---|---|---|---|
| **ENG 113** | **Literature-Based Research** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

| | | | | |
|---|---|---|---|---|
| **ENG 114** | **Prof Research & Reporting** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

| | | | | |
|---|---|---|---|---|
| **ENG 125** | **Creative Writing I** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | ENG 112, ENG 113, or ENG 114 | | | |

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ENG 135** | **Intro. to Short Fiction** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | ENG 112, ENG 113, or ENG 114 | | | |

This course provides intensive study of short fiction as a literary form, based on close reading of representative texts. Emphasis is placed on the development and analysis of short fiction. Upon completion, students should be able to interpret, analyze, and discuss the distinguishing features of short fiction.

| | | | | |
|---|---|---|---|---|
| **ENG 231** | **American Literature I** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical, and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ENG 232** | **American Literature II** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ENG 233** | **Major American Writers** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course provides an intensive study of the works of several major American authors. Emphasis is placed on American history, culture, and the literary merits. Upon completion, students should be able to interpret, analyze, and evaluate the works studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ENG 241** | **British Literature I** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ENG 242** | **British Literature II** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ENG 251** | **Western World Literature I** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **ENG 252** | **Western World Literature II** | 3 | 0 | 3 |
| Prerequisites: | ENG 112, ENG 113, or ENG 114 | | | |
| Corequisites: | None | | | |

This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## FRENCH

| | | | | |
|---|---|---|---|---|
| **FRE 111** | **Elementary French I** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **FRE 112** | **Elementary French II** | 3 | 0 | 3 |
| Prerequisites: | FRE 111 | | | |
| Corequisites: | None | | | |

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **FRE 211** | **Intermediate French I** | 3 | 0 | 3 |
| Prerequisites: | FRE 112 | | | |
| Corequisites: | None | | | |

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **FRE 212** | **Intermediate French II** | 3 | 0 | 3 |
| Prerequisites: | FRE 211 | | | |
| Corequisites: | None | | | |

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## GEOGRAPHY

| | | | | |
|---|---|---|---|---|
| **GEO 111** | **World Regional Geography** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the regional concept which emphasizes the spatial association of people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **GEO 113** | **Economic Geography** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the patterns and networks of economic interdependence and how they affect human populations. Emphasis is placed on the economic aspects of the production and distribution of goods and services and their impact on the quality of human life. Upon completion, students should be able to describe different economic systems and demonstrate an understanding of the variables that influence economic development. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **GEO 130** | **General Physical Geography** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces both the basic physical components that help shape the earth and the study of minerals, rocks, and evolution of landforms. Emphasis is placed on the geographic grid, cartography, weather, climate, mineral composition, fluvial processes, and erosion and deposition. Upon completion, students should be able to identify these components and processes and explain how they interact. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **GEO 131** | **Physical Geography I** | 3 | 2 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basic physical components that help shape the earth. Emphasis is placed on the geographic grid, cartography, weather, climate, biogeography, and soils. Upon completion, students should be able to identify these components and explain how they interact.

## GERONTOLOGY

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| GRO 120 | Gerontology | 3 | 0 | 0 | 3 |
| Prerequisites: | PSY 150 | | | | |
| Corequisites: | None | | | | |

This course covers the psychological, social, and physical aspects of aging. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.

## HEALTH

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **HEA 110** | **Personal Health/Wellness** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness.

| | | | | |
|---|---|---|---|---|
| **HEA 112** | **First Aid & CPR** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.

| | | | | |
|---|---|---|---|---|
| **HEA 120** | **Community Health** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides information about contemporary community health and school hygiene issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems.

## HISTORY

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **HIS 121** | **Western Civilization I** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **HIS 122** | **Western Civilization II** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **HIS 131** | **American History I** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **HIS 132** | **American History II** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **HIS 215** | **Nineteenth-Century Europe** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides an in-depth survey of European history from 1815 to 1914. Topics include the development of nationalism, liberalism, socialism, imperialism, and the origins of World War I. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in nineteenth-century Europe.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **HIS 216** | **Twentieth-Century Europe** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides an in-depth survey of twentieth-century Europe. Topics include World Wars I and II, and political, social, and cultural movements of the twentieth century. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in twentieth-century Europe.

| | | | | |
|---|---|---|---|---|
| **HIS 226** | **The Civil War** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course examines the social, political, economic, and ideological forces that led to the Civil War and Reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War's socioeconomic impact, aftermath, and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War.

| | | | | |
|---|---|---|---|---|
| **HIS 231** | **Recent American History** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a study of American society from the post-Depression era to the present. Topics include World War II, the Cold War, social unrest, the Vietnam War, the Great Society, and current political trends. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in recent America. The background to these events is reviewed from 1900 and the diplomatic impact of events is stressed as the United States moves into world leadership.

| | | | | |
|---|---|---|---|---|
| **HIS 236** | **North Carolina History** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America's discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina.

| | | | | |
|---|---|---|---|---|
| **HIS 293** | **Selected Topics in History** | 1-3 | 0-6 | 3 |
| Prerequisites: | Enrollment in the program | | | |
| Corequisites: | None | | | |

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

## HUMAN SERVICES

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **HSE 110** | **Intro to Human Services** | 2 | 2 | 0 | 3 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 112** | **Group Process I** | 1 | 2 | 0 | 2 |
| Prerequisites: | Enrollment in the HSE program | | | | |
| Corequisites: | None | | | | |

This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 123** | **Interviewing Techniques** | 2 | 2 | 0 | 3 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 125** | **Counseling** | 2 | 2 | 0 | 3 |
| Prerequisites: | PSY 150 | | | | |
| Corequisites: | None | | | | |

This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 160** | **HSE Clinical Supervis I** | 1 | 0 | 0 | 1 |
| Prerequisites: | | | | | |
| Corequisites: | HSE 163 | | | | |

This course provides an opportunity to discuss clinical experiences with peers and faculty. Emphasis is placed on discussing application of concepts and principles from related course content to clinical placement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes required in human services clinical experiences.

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **HSE 163** | **HSE Clinical Exp I** | 0 | 0 | 9 | 3 |
| Prerequisites: | Successful completion of 12 SHC in the HSE program | | | | |
| Corequisites: | HSE 160 | | | | |

This course provides supervised clinical experience in human services delivery agencies. Emphasis is placed on the application and practice of concepts, principles, knowledge, and skills from related course work. Upon completion, students should be able to demonstrate and apply skills, knowledge, and values from human services classes.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 210** | **Human Services Issues** | 2 | 0 | 0 | 2 |
| Prerequisites: | Successful completion of 12 SHC in the HSE program | | | | |
| Corequisites: | None | | | | |

This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 212** | **Group Process II** | 1 | 2 | 0 | 2 |
| Prerequisites: | HSE 112 | | | | |
| Corequisites: | None | | | | |

This course is a continuation of the study of interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to demonstrate their ability to communicate with others and facilitate communications between others.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 215** | **Health Care** | 3 | 2 | 3 | 5 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patient's rights, legal and ethical responsibilities, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, medical terminology, and mental health. Upon completion, students should be able to demonstrate the skills necessary to qualify as a Nursing Assistant I with the North Carolina Nurse Aide Registry.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 225** | **Crisis Intervention** | 3 | 0 | 0 | 3 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

| | | | | | |
|---|---|---|---|---|---|
| **HSE 260** | **HSE Clinical Supervis II** | 1 | 0 | 0 | 1 |
| Prerequisites: | Successful completion of 12 SHC in the HSE program | | | | |
| Corequisites: | HSE 264 | | | | |

This course provides an opportunity to discuss clinical experiences with peers and faculty. Emphasis is placed on discussing application of concepts and principles from related course content to clinical placement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes required in human services clinical experiences.

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **HSE 264** | **HSE Clinical Exp II** | 0 | 0 | 12 | 4 |
| Prerequisites: | Successful completion of 12 SHC in the HSE program | | | | |
| Corequisites: | HSE 260 | | | | |

This course provides additional supervised clinical experience in human services delivery agencies. Emphasis is placed on the application and practice of concepts, principles, knowledge, and skills from related course work. Upon completion, students should be able to demonstrate and apply skills, knowledge, and values from human services classes.

## HUMANITIES

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **HUM 115** | **Critical Thinking** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. *This course may meet the SACS humanities requirement for AAS degree programs.*

## HYDRAULICS

| | | | | |
|---|---|---|---|---|
| **HYD 110** | **Hydraulics/Pneumatics I** | 2 | 3 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

## INDUSTRIAL SCIENCE

| | | | | |
|---|---|---|---|---|
| **ISC 110** | **Workplace Safety** | 1 | 0 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

| | | | | |
|---|---|---|---|---|
| **ISC 112** | **Industrial Safety** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ISC 121** | **Envir Health & Safety** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers workplace environmental, health, and safety issues. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental, health, and safety issues.

| | | | | |
|---|---|---|---|---|
| **ISC 130** | **Intro to Quality Control** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the philosophies, principles, and techniques of managing quality. Topics include the functions, responsibilities, structures, costs, reports, personnel, and vendor-customer relationships associated with quality control and management. Upon completion, students should be able to demonstrate an understanding of quality control and management.

| | | | | |
|---|---|---|---|---|
| **ISC 131** | **Quality Management** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides a study and analysis of the aspects and implications of quality managment that lead to customer satisfaction through continuous quality improvement. Topics include Total Quality Management, ISO 9000, organizing for quality, supplier/vendor relationships, and the role of leadership in quality management. Upon completion, students should be able to demonstrate an understanding of quality management concepts and techniques.

| | | | | |
|---|---|---|---|---|
| **ISC 132** | **Mfg Quality Control** | 2 | 3 | 3 |

Prerequisites:
Corequisites: None

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

| | | | | |
|---|---|---|---|---|
| **ISC 140** | **Material & Capacity Plan** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers materials requirements planning (MRP) and capacity requirements planning (CRP). Emphasis is placed on measuring the amount of work scheduled and determining the human, physical, and material resources necessary. Upon completion, students should be able to demonstrate an understanding of material and capacity requirements planning and be prepared for the APICS CPIM examination.

| | | | | |
|---|---|---|---|---|
| **ISC 141** | **Prod Activity Control** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers a broad base of production operations in a wide variety of production environments. Emphasis is placed on the principles, approaches, and techniques needed to schedule, control, measure, and evaluate the effectiveness of production operations. Upon completion, students should be able to demonstrate an understanding of production activity control and be prepared for the APICS CPIM examination.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **ISC 142** | **Inventory Management** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | ISC 140 | | | |

This course covers the principles, concepts, and techniques of managing inventory. Emphasis is placed on determining what to order, quantities to order, when items are needed, when to order, and how and where to store. Upon completion, students should be able to demonstrate an understanding of the process of inventory management and be prepared for the APICS CPIM examination.

| | | | | |
|---|---|---|---|---|
| **ISC 210** | **Oper & Prod Planning** | 3 | 0 | 3 |
| Prerequisites: | OMT 110 | | | |
| Corequisites: | None | | | |

This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning. This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.

| | | | | |
|---|---|---|---|---|
| **ISC 221** | **Statistical Qual Control** | 3 | 0 | 3 |
| Prerequisites: | BUS 121, OMT 110 | | | |
| Corequisites: | None | | | |

This course covers the principles and techniques of statistical process control for the improvement of productivity. Emphasis is placed on basic statistics for quality control, organization and procedures for efficient quality control including inspections, process control, and tests of significance. Upon completion, students should be able to apply statistical principles and techniques to enhance production.

## MACHINING

| | | | | |
|---|---|---|---|---|
| **MAC 111** | **Machining Technology I** | 2 | 12 | 6 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

| | | | | |
|---|---|---|---|---|
| **MAC 112** | **Machining Technology II** | 2 | 12 | 6 |
| Prerequisites: | MAC 111 | | | |
| Corequisites: | None | | | |

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MAC 113** | **Machining Technology III** | 2 | 12 | 6 |
| Prerequisites: | MAC 112 | | | |
| Corequisites: | None | | | |

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

| | | | | |
|---|---|---|---|---|
| **MAC 114** | **Intro to Metrology** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

| | | | | |
|---|---|---|---|---|
| **MAC 121** | **Intro to CNC** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

| | | | | |
|---|---|---|---|---|
| **MAC 122** | **CNC Turning** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

| | | | | |
|---|---|---|---|---|
| **MAC 124** | **CNC Milling** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

| | | | | |
|---|---|---|---|---|
| **MAC 152** | **Adv Machining Calc** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

| | | | | |
|---|---|---|---|---|
| **MAC 222** | **Advanced CNC Turning** | 1 | 3 | 2 |
| Prerequisites: | MAC 122 | | | |
| Corequisites: | None | | | |

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MAC 224** | **Advanced CNC Milling** | 1 | 3 | 2 |
| Prerequisites: | MAC 124 | | | |
| Corequisites: | None | | | |

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

| | | | | |
|---|---|---|---|---|
| **MAC 226** | **CNC EDM Machining** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the programming, setup, and operation of CNC electrical discharge machines. Topics include programming formats, control functions, program editing, production of parts, and inspection. Upon completion, students should be able to manufacture simple parts using CNC electrical discharge machines.

| | | | | |
|---|---|---|---|---|
| **MAC 247** | **Production Tooling** | 2 | 0 | 2 |
| Prerequisites: | MAC 111 | | | |
| Corequisites: | None | | | |

This course provides advanced study in tooling currently utilized in the production of metal parts. Emphasis is placed on the proper use of tooling used on CNC and other production machine tools. Upon completion, students should be able to choose proper tool .

| | | | | |
|---|---|---|---|---|
| **MAC 248** | **Production Procedures** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers product planning and control and scheduling and routing of operations. Topics include cost-effective production methods, dimensional and statistical quality control, and the tooling and machines required for production. Upon completion, students should be able to plan, set up, and produce cost-effective quality machined parts.

## MATHEMATICS

| | | | | |
|---|---|---|---|---|
| **MAT 060** | **Essential Mathematics** | 3 | 2 | 4 |
| Prerequisites: | Satisfactory Placement Test Scores | | | |
| Corequisites: | None | | | |

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

| | | | | |
|---|---|---|---|---|
| **MAT 070** | **Introductory Algebra** | 3 | 2 | 4 |
| Prerequisites: | MAT 060 | | | |
| Corequisites: | RED 080 | | | |

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MAT 080** | **Intermediate Algebra** | 3 | 2 | 4 |
| Prerequisites: | MAT 070 | | | |
| Corequisites: | RED 080 | | | |

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

| | | | | |
|---|---|---|---|---|
| **MAT 110** | **Mathematical Measurement** | 2 | 2 | 3 |
| Prerequisites: | MAT 070 | | | |
| Corequisites: | None | | | |

This course provides an activity-based approach to utilizing, interpreting, and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion, and estimation within metric, apothecary, and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data.

| | | | | |
|---|---|---|---|---|
| **MAT 121** | **Algebra/Trigonometry I** | 2 | 2 | 3 |
| Prerequisites: | MAT 070 | | | |
| Corequisites: | None | | | |

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic, radical, exponential, and logarithmic functions; descriptive statistics; right triangle trigonometry; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

| | | | | |
|---|---|---|---|---|
| **MAT 122** | **Algebra/Trigonometry II** | 2 | 2 | 3 |
| Prerequisites: | MAT 121 | | | |
| Corequisites: | None | | | |

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, trigonometry, and systems of equations. Topics include translation and scaling of functions, Sine Law, Cosine Law, complex numbers, vectors, statistics, and systems of equations. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

| | | | | |
|---|---|---|---|---|
| **MAT 140** | **Survey of Mathematics** | 3 | 0 | 3 |
| Prerequisites: | MAT 070 | | | |
| Corequisites: | None | | | |

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MAT 151** | **Statistics I** | 3 | 0 | 3 |
| Prerequisites: | MAT 161 or MAT 080 and MAT 161 | | | |
| Corequisites: | None | | | |

This course provides a project-based approach to the study of basic probability, descriptive and inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 161** | **College Algebra** | 3 | 0 | 3 |
| Prerequisites: | MAT 080 | | | |
| Corequisites: | None | | | |

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 162** | **College Trigonometry** | 3 | 0 | 3 |
| Prerequisites: | MAT 161 | | | |
| Corequisites: | None | | | |

This course provides an integrated technological approach to trigonometry and its applications. Topics include trigonometric ratios, right triangles, oblique triangles, trigonometric functions, graphing, vectors, and complex numbers. Upon completion, students should be able to apply the above principles of trigonometry to problem solving and communication. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 175** | **Precalculus** | 4 | 0 | 4 |
| Prerequisites: | High School Algebra III/Trigonometry or satisfactory placement test score | | | |
| Corequisites: | None | | | |

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 263** | **Brief Calculus** | 3 | 0 | 3 |
| Prerequisites: | MAT 161 | | | |
| Corequisites: | None | | | |

This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MAT 271** | **Calculus I** | 3 | 2 | 4 |
| Prerequisites: | MAT 175 | | | |
| Corequisites: | None | | | |

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 272** | **Calculus II** | 3 | 2 | 4 |
| Prerequisites: | MAT 271 | | | |
| Corequisites: | None | | | |

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 273** | **Calculus III** | 3 | 2 | 4 |
| Prerequisites: | MAT 272 | | | |
| Corequisites: | None | | | |

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **MAT 280** | **Linear Algebra** | 3 | 0 | 3 |
| Prerequisites: | MAT 271 | | | |
| Corequisites: | None | | | |

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimennsions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems.

| | | | | |
|---|---|---|---|---|
| **MAT 285** | **Differential Equations** | 3 | 0 | 3 |
| Prerequisites: | MAT 272 | | | |
| Corequisites: | None | | | |

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena.

## MECHANICAL

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MEC 110** | **Intro to CAD/CAM** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.

| | | | | |
|---|---|---|---|---|
| **MEC 111** | **Machine Processes I** | 2 | 3 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance.

| | | | | |
|---|---|---|---|---|
| **MEC 112** | **Machine Processes II** | 2 | 3 | 3 |
| Prerequisites: | MEC 111 | | | |
| Corequisites: | None | | | |

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

| | | | | |
|---|---|---|---|---|
| **MEC 160** | **Mechanical Industrial Sys** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers mechanical components used in industrial machine operation. Emphasis is placed on mechanical drives, belts, gears, couplings, electrical drives, and other related topics. Upon completion, students should be able to demonstrate an understanding of industrial machines and be able to maintain this equipment.

| | | | | |
|---|---|---|---|---|
| **MEC 161** | **Manufacturing Processes I** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides the fundamental principles of processing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added processing provided to the customer by the manufacturers. Upon completion, students should be able to apply principles of traditional and non-traditional processing for metals and non-metals.

| | | | | |
|---|---|---|---|---|
| **MEC 180** | **Engineering Materials** | 2 | 3 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MEC 210** | **Materials-Stress Analysis** | 1 | 2 | 2 |
| Prerequisites: | MAT 121 | | | |
| Corequisites: | None | | | |

This course is a study of the principles and analysis of stress within machines and structural elements. Emphasis is placed on various types of loads including static, impact, varying, and dynamic loads. Upon completion, students should be able to demonstrate proficiency in analyzing stress in mechanical joints, welds, beams, and columns.

| | | | | |
|---|---|---|---|---|
| **MEC 250** | **Statics & Strength of Mat** | 4 | 3 | 5 |
| Prerequisites: | PHY 131 or PHY 151 | | | |
| Corequisites: | None | | | |

This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components.

## MEDICAL ASSISTING

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **MED 110** | **Orientation to Med Assist** | 1 | 0 | 0 | 1 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

| | | | | | |
|---|---|---|---|---|---|
| **MED 116** | **Introduction to A & P** | 3 | 2 | 0 | 4 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care.

| | | | | | |
|---|---|---|---|---|---|
| **MED 118** | **Medical Law and Ethics** | 2 | 0 | 0 | 2 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

| | | | | | |
|---|---|---|---|---|---|
| **MED 121** | **Medical Terminology I** | 3 | 0 | 0 | 3 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **MED 122** | **Medical Terminology II** | 3 | 0 | 0 | 3 |
| Prerequisites: | MED 121 | | | | |
| Corequisites: | None | | | | |

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

| | | | | | |
|---|---|---|---|---|---|
| **MED 130** | **Admin Office Proc I** | 1 | 2 | 0 | 2 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

| | | | | | |
|---|---|---|---|---|---|
| **MED 131** | **Admin Office Proc II** | 1 | 2 | 0 | 2 |
| Prerequisites: | MED 130 | | | | |
| Corequisites: | None | | | | |

This course is the second in a series and provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

| | | | | | |
|---|---|---|---|---|---|
| **MED 134** | **Medical Transcription** | 2 | 2 | 0 | 3 |
| Prerequisites: | MED 121 | | | | |
| Corequisites: | None | | | | |

This course provides the basic knowledge, understanding, and skills required to complete medical reports and transcribe medical dictation. Emphasis is placed on correct punctuation, capitalization, and spelling. Upon completion, students should be able to demonstrate competence in medical transcription.

| | | | | | |
|---|---|---|---|---|---|
| **MED 140** | **Exam Room Procedures I** | 3 | 4 | 0 | 5 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

| | | | | | |
|---|---|---|---|---|---|
| **MED 150** | **Laboratory Procedures I** | 3 | 4 | 0 | 5 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **MED 232** | **Medical Insurance Coding** | 1 | 3 | 0 | 2 |
| Prerequisites: | MED 131 | | | | |
| Corequisites: | None | | | | |

This course is designed to build upon the coding skills introduced in MED 131. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.

| | | | | | |
|---|---|---|---|---|---|
| **MED 240** | **Exam Room Procedures II** | 3 | 4 | 0 | 5 |
| Prerequisites: | MED 140 | | | | |
| Corequisites: | None | | | | |

This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures.

| | | | | | |
|---|---|---|---|---|---|
| **MED 260** | **MED Clinical Externship** | 0 | 0 | 15 | 5 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

| | | | | | |
|---|---|---|---|---|---|
| **MED 270** | **Symptomatology** | 2 | 2 | 0 | 3 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

| | | | | | |
|---|---|---|---|---|---|
| **MED 272** | **Drug Therapy** | 3 | 0 | 0 | 3 |
| Prerequisites: | Enrollment in the Medical Assisting program and MED 140 | | | | |
| Corequisites: | None | | | | |

This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

| | | | | | |
|---|---|---|---|---|---|
| **MED 276** | **Patient Education** | 1 | 2 | 0 | 2 |
| Prerequisites: | Enrollment in the Medical Assisting program | | | | |
| Corequisites: | None | | | | |

This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

## MARKETING AND RETAILING

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MKT 120** | **Principles of Marketing** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

| | | | | |
|---|---|---|---|---|
| **MKT 121** | **Retailing** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course examines the role of retailing in the economy. Topics include the development of present retail structure, functions performed, effective operations, and managerial problems resulting from current economic and social trends. Upon completion, students should be able to demonstrate an understanding of the basic principles of retailing.

| | | | | |
|---|---|---|---|---|
| **MKT 123** | **Fundamentals of Selling** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

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|---|---|---|---|---|
| **MKT 125** | **Buying and Merchandising** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course includes an analysis of the organization for buying—what, when and how to buy—and the principles of effective inventory and stock control. Topics include organization for buying, analysis of buyers' responsibilities, pricing, inventory control, planning, cost effectiveness, and vendor relationships. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

| | | | | |
|---|---|---|---|---|
| **MKT 220** | **Advertising and Sales Promotion** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

## MAINTENANCE

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **MNT 110** | **Intro to Maint Procedures** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

| | | | | |
|---|---|---|---|---|
| **MNT 111** | **Maintenance Practices** | 1 | 3 | 2 |
| Prerequisites: | MNT 110 | | | |
| Corequisites: | None | | | |

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

| | | | | |
|---|---|---|---|---|
| **MNT 220** | **Rigging & Moving** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the principles of safe rigging practices for handling, placing, and moving heavy machinery and equipment. Topics include safety estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to relocate and set up equipment safely using accepted rigging practices.

| | | | | |
|---|---|---|---|---|
| **MNT 230** | **Pumps & Piping Systems** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

## MUSIC

| | | | | |
|---|---|---|---|---|
| **MUS 110** | **Music Appreciation** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## NURSING ASSISTANT

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **NAS 101** | **Nursing Assistant I** | 3 | 2 | 3 | 5 |
| Prerequisites: | High school diploma or GED | | | | |
| Corequisites: | None | | | | |

This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patients' rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant I with the North Carolina Nurse Aide I Registry. *This is a certificate-level course.*

| | | | | | |
|---|---|---|---|---|---|
| **NAS 102** | **Nursing Assistant II** | 3 | 2 | 6 | 6 |
| Prerequisites: | High school diploma or GED and currently listed as NA I with State of North Carolina | | | | |
| Corequisites: | None | | | | |

This course provides training in selected advanced nursing assistant procedures. Emphasis is placed on sterile techniques, respiratory procedures, catheterizations, wound and trach care, irrigations, and ostomy care. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant II with the North Carolina Board of Nursing. *This is a certificate-level course.*

| | | | | | |
|---|---|---|---|---|---|
| **NAS 103** | **Home Health Care** | 2 | 0 | 0 | 2 |
| Prerequisites: | High school diploma or GED | | | | |
| Corequisites: | None | | | | |

This course covers basic health issues that affect clients in the home setting. Emphasis is placed on home safety, recognizing significant changes in the client's condition, family dynamics, and use of home health care equipment. Upon completion, students should be able to identify care for clients at home. *This is a certificate-level course.*

| | | | | | |
|---|---|---|---|---|---|
| **NAS 104** | **Home Health Clinical** | 0 | 0 | 3 | 1 |
| Prerequisites: | | | | | |
| Corequisites: | None | | | | |

This course provides supervised experience in the home and/or simulated laboratory with emphasis on the application of basic nursing skills. Emphasis is placed on the transfer of knowledge and skills from institutional settings to home environments. Upon completion, students should be able to safely and efficiently provide delegated basic care to clients in the home. *This is a certificate-level course.*

## NETWORKING TECHNOLOGY

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **NET 110** | **Data Comm/Networking** | 2 | 2 | 3 |
| Prerequisites: | CIS 110 | | | |
| Corequisites: | None | | | |

This course introduce data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

# NURSING

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **NUR 115** | **Fundamentals of Nursing** | 2 | 3 | 6 | 5 |
| Prerequisites: | CNAI Certification; Admission to the Associate Degree Nursing program | | | | |
| Corequisites: | BIO 168, NUR 117 | | | | |

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on the application of the nursing process to provide and manage care as a member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations of health.

| | | | | | |
|---|---|---|---|---|---|
| **NUR 116** | **Nursing of Older Adults** | 2 | 3 | 3 | 4 |
| Prerequisites: | NUR 115, NUR 117, NUR 133 | | | | |
| Corequisites: | None | | | | |

This course provides an opportunity to utilize the provider of care and manager of care roles to meet nursing needs of older adults in a variety of settings. Emphasis is placed on the aging process as it applies to normal developmental changes and alterations in health commonly occurring in the older adult. Upon completion, students should be able to apply the nursing process in caring for the older adult.

| | | | | | |
|---|---|---|---|---|---|
| **NUR 117** | **Pharmacology** | 1 | 3 | 0 | 2 |
| Prerequisites: | Enrollment in ADN program | | | | |
| Corequisites: | NUR 115 | | | | |

This course introduces information concerning sources, effects, legalities, and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Upon completion, students should be able to compute dosages and administer medication safely.

| | | | | | |
|---|---|---|---|---|---|
| **NUR 125** | **Maternal-Child Nursing** | 5 | 3 | 6 | 8 |
| Prerequisites: | NUR 115, NUR 133, BIO 175, PSY 241 | | | | |
| Corequisites: | None | | | | |

This course introduces nursing concepts related to the delivery of nursing care for the expanding family. Emphasis is placed on utilizing the nursing process as a framework for managing/providing nursing care to individuals and families along the wellness-illness continuum. Upon completion, students should be able to utilize the nursing process to deliver nursing care to mothers, infants, children, and families.

| | | | | | |
|---|---|---|---|---|---|
| **NUR 133** | **Nursing Assessment** | 2 | 3 | 0 | 3 |
| Prerequisites: | BIO 168, NUR 115 | | | | |
| Corequisites: | BIO 169 | | | | |

This course provides theory and application experience for performing nursing assessment of individuals across the life span. Emphasis is placed on interviewing and physical assessment techniques and documentation of findings appropriate for nursing. Upon completion, students should be able to complete a health history and perform a noninvasive physical assessment.

| | | | | | |
|---|---|---|---|---|---|
| **NUR 135** | **Adult Nursing I** | 5 | 3 | 9 | 9 |
| Prerequisites: | NUR 115, NUR 117, BIO 168, PSY 150 | | | | |
| Corequisites: | BIO 169, NUR 133 | | | | |

This course introduces concepts related to the nursing care of individuals experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellness-illness continuum. Upon completion, students should be able to apply the nursing process to individuals experiencing acute and chronic alterations in health.

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **NUR 185** | **Mental Health Nursing** | 3 | 0 | 6 | 5 |
| Prerequisites: | NUR 115, NUR 117, PSY 281 | | | | |
| Corequisites: | None | | | | |

This course includes concepts related to the nursing care of individuals experiencing alterations in social and psychological functioning. Emphasis is placed on utilizing the nursing process to provide and manage nursing care for individuals with common psychiatric disorders or mental health needs. Upon completion, students should be able to apply psychosocial theories in the nursing care of individuals with psychiatric/ mental health needs.

| | | | | | |
|---|---|---|---|---|---|
| **NUR 235** | **Adult Nursing II** | 4 | 3 | 15 | 10 |
| Prerequisites: | NUR 135, BIO 170 | | | | |
| Corequisites: | None | | | | |

This course provides expanded concepts related to nursing care for individuals experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Upon completion, students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health.

## OPERATIONS MANAGEMENT

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **OMT 110** | **Intro to Operations Mgmt** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides an overview of the operations management field. Topics include production and operations planning, materials management, environmental health and safety, and quality management. Upon completion, students should be able to demonstrate an understanding of the operations management functions.

| | | | | |
|---|---|---|---|---|
| **OMT 112** | **Materials Management** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. *This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.*

| | | | | |
|---|---|---|---|---|
| **OMT 143** | **Just-In-Time** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a study of the quality philosophy and Just-in-Time techniques designed to improve the ability to economically respond to change. Topics include production to demand with perfect quality, no unnecessary lead times, elimination of waste, developing productivity of people, and the quest for continuous improvement. Upon completion, students should be able to demonstrate an understanding of Just-in-Time methods and be prepared for the APICS CPIM examination.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **OMT 155** | **Meeting & Present Skills** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is designed to develop skills for facilitating successful meetings by enhancing employee involvement and initiative. Topics include planning meetings that promote results, encouraging diverse points of view, handling disruptive behavior, encouraging participation, and taking action when required. Upon completion, students should be able to plan and participate in meetings that accomplish positive results.

| | | | | |
|---|---|---|---|---|
| **OMT 245** | **Master Planning** | 3 | 0 | 3 |
| Prerequisites: | ISC 140 | | | |
| Corequisites: | None | | | |

This course includes demand management, production planning, master production scheduling, and final assembly scheduling. Topics include forecasting, budgeting, aggregate output level, and order entry. Upon completion, students should be able to demonstrate an understanding of master planning and be prepared for the APICS CPIM examination.

| | | | | |
|---|---|---|---|---|
| **OMT 246** | **Systems and Technology** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course includes the planning and design of production systems and the selection of appropriate technology. Emphasis is placed on investigation into computerized production technology and appropriate systems to implement the technology. Upon completion, students should be able to demonstrate an understanding of production systems and technology and be prepared for the APICS CPIM examination.

| | | | | |
|---|---|---|---|---|
| **OMT 260** | **Issues in Operations Mgt.** | 3 | 0 | 3 |
| Prerequisites: | ISC 121, ISC 210, OMT 112, and ISC 130, ISC 131, ISC 132, or ISC 221 | | | |
| Corequisites: | None | | | |

This course presents a variety of topics that highlight contemporary problems and issues related to operations management. Emphasis is placed on production and operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment. *This course is a unique concentration requirement of the Operations Management concentration in the Business Administration program.*

## OFFICE SYSTEMS TECHNOLOGY

| | | | | |
|---|---|---|---|---|
| **OST 080** | **Keyboarding Literacy** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is designed to develop elementary keyboarding skills. Emphasis is placed on mastery of the keyboard. Upon completion, students should be able to demonstrate basic proficiency in keyboarding.

| | | | | |
|---|---|---|---|---|
| **OST 131** | **Keyboarding** | 1 | 2 | 2 |
| Prerequisites: | OST 080 or satisfactory score on placement test | | | |
| Corequisites: | None | | | |

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system. Basic word processing functions and document formatting are introduced.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **OST 134** | **Text Entry & Formatting** | 3 | 2 | 4 |
| Prerequisites: | OST 131 | | | |
| Corequisites: | None | | | |

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents.

| | | | | |
|---|---|---|---|---|
| **OST 136** | **Word Processing** | 1 | 2 | 2 |
| Prerequisites: | OST 131, OST 134 | | | |
| Corequisites: | None | | | |

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment. Students will learn to copy and organize diskettes and files, as well as compose, key, and complete a job under time pressure.

| | | | | |
|---|---|---|---|---|
| **OST 164** | **Text Editing Applications** | 3 | 0 | 3 |
| Prerequisites: | None | | | |
| Corequisites: | OST 131 | | | |

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text. Edited documents will be formatted properly using a computerized word processing program.

| | | | | |
|---|---|---|---|---|
| **OST 181** | **Intro to Office Systems** | 3 | 0 | 3 |
| Prerequisites: | OST 131 | | | |
| Corequisites: | None | | | |

This course introduces the skills and abilities needed in today's office. Topics include effectively interacting with co-workers and the public, processing simple financial and informational documents, and performing functions typical of today's offices. Upon completion, students should be able to display skills and decision-making abilities essential for functioning in the total office context. In addition, telephone techniques, mail services, making travel arrangements, and meeting/conference planning are introduced.

| | | | | |
|---|---|---|---|---|
| **OST 184** | **Records Management** | 1 | 2 | 2 |
| Prerequisites: | None | | | |
| Corequisites: | OST 131 | | | |

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

| | | | | |
|---|---|---|---|---|
| **OST 223** | **Machine Transcription I** | 1 | 2 | 2 |
| Prerequisites: | OST 134, OST 136, and OST 164 | | | |
| Corequisites: | None | | | |

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **OST 236** | **Adv Word/Information Proc** | 2 | 2 | 3 |
| Prerequisites: | OST 136 | | | |
| Corequisites: | None | | | |

This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents. Students will learn desktop publishing and presentation techniques and terminology such as composition, layout, customization, and graphic design using a number of software programs.

| | | | | |
|---|---|---|---|---|
| **OST 286** | **Professional Development** | 2 | 0 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

| | | | | |
|---|---|---|---|---|
| **OST 289** | **Office Systems Management** | 2 | 2 | 3 |
| Prerequisites: | OST 134, OST 136, OST 164 and 181 | | | |
| Corequisites: | None | | | |

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment. A simulation packet is used to show mastery of table, graph, and correspondence preparation, filing, prioritization, communication skills and use of reference materials.

## PHLEBOTOMY

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **PBT 100** | **Phlebotomy Technology** | 5 | 2 | 0 | 6 |
| Prerequisites: | Enrollment in the Phlebotomy Technology program | | | | |
| Corequisites: | PBT 101 | | | | |

This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is placed on ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques. *This is a certificate-level course.*

| | | | | | |
|---|---|---|---|---|---|
| **PBT 101** | **Phlebotomy Practicum** | 0 | 0 | 9 | 3 |
| Prerequisites: | Enrollment in the Phlebotomy Technology program | | | | |
| Corequisites: | PBT 100 | | | | |

This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is placed on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings. *This is a certificate-level course.*

## PHYSICAL EDUCATION

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **PED 110** | **Fit and Well for Life** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests.

| | | | | |
|---|---|---|---|---|
| **PED 111** | **Physical Fitness I** | 0 | 3 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program.

| | | | | |
|---|---|---|---|---|
| **PED 113** | **Aerobics I** | 0 | 3 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.

| | | | | |
|---|---|---|---|---|
| **PED 114** | **Aerobics II** | 0 | 3 | 1 |
| Prerequisites: | PED 113 | | | |
| Corequisites: | None | | | |

This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine.

| | | | | |
|---|---|---|---|---|
| **PED 117** | **Weight Training I** | 0 | 3 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program.

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|---|---|---|---|---|
| **PED 121** | **Walk, Jog, Run** | 0 | 3 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **PED 128** | **Golf-Beginning** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf.

| | | | | |
|---|---|---|---|---|
| **PED 129** | **Golf-Intermediate** | 0 | 2 | 1 |
| Prerequisites: | PED 128 | | | |
| Corequisites: | None | | | |

This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf.

| | | | | |
|---|---|---|---|---|
| **PED 130** | **Tennis-Beginning** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis.

| | | | | |
|---|---|---|---|---|
| **PED 131** | **Tennis-Intermediate** | 0 | 2 | 1 |
| Prerequisites: | PED 130 | | | |
| Corequisites: | None | | | |

This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis.

| | | | | |
|---|---|---|---|---|
| **PED 132** | **Racquetball-Beginning** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the fundamentals of racquetball. Emphasis is placed on rules, fundamentals, and strategies of beginning racquetball. Upon completion, students should be able to play recreational racquetball.

| | | | | |
|---|---|---|---|---|
| **PED 133** | **Racquetball-Intermediate** | 0 | 2 | 1 |
| Prerequisites: | PED 132 | | | |
| Corequisites: | None | | | |

This course covers more advanced racquetball techniques. Emphasis is placed on refining basic skills, performing advanced shots, and playing strategies for singles and doubles. Upon completion, students should be able to play competitive racquetball.

| | | | | |
|---|---|---|---|---|
| **PED 137** | **Badminton** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles. Upon completion, students should be able to apply these skills in playing situations.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **PED 139** | **Bowling-Beginning** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling.

| | | | | |
|---|---|---|---|---|
| **PED 142** | **Lifetime Sports** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports activities.

| | | | | |
|---|---|---|---|---|
| **PED 143** | **Volleyball-Beginning** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball.

| | | | | |
|---|---|---|---|---|
| **PED 144** | **Volleyball-Intermediate** | 0 | 2 | 1 |
| Prerequisites: | PED 143 | | | |
| Corequisites: | None | | | |

This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball.

| | | | | |
|---|---|---|---|---|
| **PED 145** | **Basketball-Beginning** | 0 | 2 | 1 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball.

| | | | | |
|---|---|---|---|---|
| **PED 146** | **Basketball-Intermediate** | 0 | 2 | 1 |
| Prerequisites: | PED 145 | | | |
| Corequisites: | None | | | |

This course covers more advanced basketball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play basketball at a competitive level.

| | | Class | Lab | Credit |
|---|---|---|---|---|

## PHILOSOPHY

| | | | | |
|---|---|---|---|---|
| **PHI 215** | **Philosophical Issues** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **PHI 230** | **Introduction to Logic** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning.

| | | | | |
|---|---|---|---|---|
| **PHI 240** | **Introduction to Ethics** | 3 | 0 | 3 |
| Prerequisites: | ENG 111 | | | |
| Corequisites: | None | | | |

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## PHYSICS

| | | | | |
|---|---|---|---|---|
| **PHY 121** | **Applied Physics I** | 3 | 2 | 4 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analyses, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion , students should be able to demonstrate an understanding of the principles studies as applied in industrial and service fields.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **PHY 131** | **Physics-Mechanics** | 3 | 2 | 4 |
| Prerequisites: | MAT 121 or MAT 161 | | | |
| Corequisites: | None | | | |

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

| | | | | |
|---|---|---|---|---|
| **PHY 151** | **College Physics I** | 3 | 2 | 4 |
| Prerequisites: | MAT 162, or MAT 175 | | | |
| Corequisites: | None | | | |

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

| | | | | |
|---|---|---|---|---|
| **PHY 152** | **College Physics II** | 3 | 2 | 4 |
| Prerequisites: | PHY 151 | | | |
| Corequisites: | None | | | |

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | | | |
|---|---|---|---|---|
| **PHY 251** | **General Physics I** | 4 | 3 | 5 |
| Prerequisites: | MAT 271 | | | |
| Corequisites: | MAT 272 | | | |

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **PHY 252** | **General Physics II** | 3 | 3 | 4 |
| Prerequisites: | MAT 272 and PHY 251 | | | |
| Corequisites: | None | | | |

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/ mathematics.*

## POLITICAL SCIENCE

| | | | | |
|---|---|---|---|---|
| **POL 120** | **American Government** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **POL 130** | **State & Local Government** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual.

| | | | | |
|---|---|---|---|---|
| **POL 210** | **Comparative Government** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **POL 220** | **International Relations** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **POL 240** | **The American Presidency** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides an in-depth examination of the American presidency as the pivotal institution in American government and history. Emphasis is placed on the creation of the office, its constitutional powers and limitations, elections, and the leadership of selected presidents. Upon completion, students should be able to identify and explain the evolution of presidential powers and the reasons for successful and failed presidential leadership.

## PSYCHOLOGY

| | | | | |
|---|---|---|---|---|
| **PSY 118** | **Interpersonal Psychology** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

| | | | | |
|---|---|---|---|---|
| **PSY 150** | **General Psychology** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **PSY 241** | **Developmental Psych** | 3 | 0 | 3 |

Prerequisites: PSY 150
Corequisites: None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **PSY 246** | **Adolescent Psychology** | 3 | 0 | 3 |
| Prerequisites: | PSY 150 | | | |
| Corequisites: | None | | | |

This course provides an overview of the behavior patterns, life changes, and social issues that accompany the developmental stage of adolescence. Topics include developmental theories; physical, cognitive and psychosocial growth; transitions to young adulthood; and sociocultural factors that influence adolescent roles in home, school and community. Upon completion, students should be able to identify typical and atypical adolescent behavior patterns as well as appropriate strategies for interacting with adolescents.

| | | | | |
|---|---|---|---|---|
| **PSY 255** | **Intro to Exceptionality** | 3 | 0 | 3 |
| Prerequisites: | PSY 150 | | | |
| Corequisites: | None | | | |

This course introduces the psychology of the exceptional person. Topics include theoretical perspectives, terminology, and interventions pertaining to various handicapping conditions as well as the resulting psychosocial adjustments. Upon completion, students should be able to demonstrate a basic understanding of the potentials and limitations of the exceptional person.

| | | | | |
|---|---|---|---|---|
| **PSY 263** | **Educational Psychology** | 3 | 0 | 3 |
| Prerequisites: | PSY 150 | | | |
| Corequisites: | None | | | |

This course examines the application of psychological theories and principles to the educational process and setting. Topics include learning and cognitive theories, achievement motivation, teaching and learning styles, teacher and learner roles, assessment, and developmental issues. Upon completion, students should be able to demonstrate an understanding of the application of psychological theory to educational practice.

| | | | | |
|---|---|---|---|---|
| **PSY 265** | **Behavioral Modification** | 3 | 0 | 3 |
| Prerequisties: | PSY 150 | | | |
| Corequisites: | None | | | |

This course is an applied study of factors influencing human behavior and strategies for behavioral change. Emphasis is placed on cognitive-behavioral theory, behavioral assessment, practical applications of conditioning techniques, and maintenance of adaptive behavior patterns. Upon completion, students should be able to implement basic learning principles to effect behavioral changes in self and others.

| | | | | |
|---|---|---|---|---|
| **PSY 281** | **Abnormal Psychology** | 3 | 0 | 3 |
| Prerequisites: | PSY 150 | | | |
| Corequisites: | None | | | |

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## READING

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **RED 080** | **Intro to College Reading** | 3 | 2 | 4 |
| Prerequisites: | Satisfactory Placement Test Scores | | | |
| Corequisites: | None | | | |

This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. *This course does not satisfy the developmental reading prerequisite for ENG 111.*

| | | | | |
|---|---|---|---|---|
| **RED 090** | **Improved College Reading** | 3 | 2 | 4 |
| Prerequisites: | RED 080 or satisfactory placement tests scores | | | |
| Corequisites: | None | | | |

This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author's purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material. *This course satisfies the developmental reading prerequisite for ENG 111.*

## RELIGION

| | | | | |
|---|---|---|---|---|
| **REL 110** | **World Religions** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **REL 211** | **Intro to Old Testament** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **REL 212** | **Intro to New Testament** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## SUBSTANCE ABUSE

| | | Class | Lab | Clin. | Credit |
|---|---|---|---|---|---|
| **SAB 130** | **Addictive Behaviors** | 3 | 0 | 0 | 3 |

Prerequisites:
Corequisites: None

This course surveys and investigates addiction patterns and various methods of treatment. Emphasis is placed on sociocultural, psychological, and physiological theories of substance abuse and treatment. Upon completion, students should be able to demonstrate an understanding of theories of substance abuse and treatment.

## SOCIOLOGY

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **SOC 210** | **Introduction to Sociology** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **SOC 213** | **Sociology of the Family** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **SOC 220** | **Social Problems** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

| | | | | |
|---|---|---|---|---|
| **SOC 225** | **Social Diversity** | 3 | 0 | 3 |

Prerequisites:
Corequisites: None

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.*

## SPANISH

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **SPA 111** | **Elementary Spanish I** | 3 | 0 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **SPA 112** | **Elementary Spanish II** | 3 | 0 | 3 |
| Prerequisites: | SPA 111 | | | |
| Corequisites: | None | | | |

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **SPA 211** | **Intermediate Spanish I** | 3 | 0 | 3 |
| Prerequisites: | SPA 112 | | | |
| Corequisites: | None | | | |

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

| | | | | |
|---|---|---|---|---|
| **SPA 212** | **Intermediate Spanish II** | 3 | 0 | 3 |
| Prerequisites: | SPA 211 | | | |
| Corequisites: | None | | | |

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.*

## WELDING

| | | | | |
|---|---|---|---|---|
| **WLD 110** | **Cutting Processes** | 1 | 3 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **WLD 111** | **Oxy-Fuel Welding** | 1 | 3 | 2 |

Prerequisites:
Corequisites: None

This course introduces the oxy-fuel welding process. Topics include safety, proper equipment setup, and operation of oxy-fuel welding equipment with emphasis on bead application, profile, and discontinuities. Upon completion, students should be able to oxy-fuel weld fillets and grooves on plate and pipe in various positions.

| | | | | |
|---|---|---|---|---|
| **WLD 112** | **Basic Welding Processes** | 1 | 3 | 2 |

Prerequisites:
Corequisites: None

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

| | | | | |
|---|---|---|---|---|
| **WLD 115** | **SMAW (Stick) Plate** | 2 | 9 | 5 |

Prerequisites:
Corequisites: None

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

| | | | | |
|---|---|---|---|---|
| **WLD 121** | **GMAW (MIG) FCAW/Plate** | 2 | 6 | 4 |

Prerequisites:
Corequisites: None

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

| | | | | |
|---|---|---|---|---|
| **WLD 131** | **GTAW (TIG) Plate** | 2 | 6 | 4 |

Prerequisites:
Corequisites: None

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

| | | | | |
|---|---|---|---|---|
| **WLD 141** | **Symbols & Specifications** | 2 | 2 | 3 |

Prerequisites:
Corequisites: None

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

| | | Class | Lab | Credit |
|---|---|---|---|---|
| **WLD 143** | **Welding Metallurgy** | 1 | 2 | 2 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

| | | | | |
|---|---|---|---|---|
| **WLD 261** | **Certification Practices** | 1 | 3 | 2 |
| Prerequisites: | WLD 115, WLD 121, and WLD 131 | | | |
| Corequisites: | None | | | |

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.

| | | | | |
|---|---|---|---|---|
| **WLD 262** | **Inspection & Testing** | 2 | 2 | 3 |
| Prerequisites: | | | | |
| Corequisites: | None | | | |

This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

# Administration, Faculty and Staff

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The Mitchell Community College Board of Trustees meets on the fourth Wednesday evening of each month except in November and December when the Board meets on the first Wednesday after Thanksgiving to avoid conflict with the Thanksgiving and Christmas Holidays. Also, generally, the Board does not meet in July. Meetings are routinely held at 7:30 p.m. in the Board Room of Kirkman House on the Main Campus in Statesville.

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Mary Lou Lawson ..... Admissions Specialist/Counselor
Douglas Rhoney ..... Admissions Specialist/Counselor

William Jennings ..... Career Center Director/Counselor
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Carol Johnson ..... Director of Basic Skills
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Linda Stikeleather ..... Coordinator for Community Service Programs
Michael Tucker ..... Small Business Center Director
Bill Vordtriede ..... Director of North Carolina Rider Education
Cindy Wagner ..... Computer Operations

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Vicki Caldwell ..... Librarian
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Judy Phillips ..... Educational Support Services Center Coordinator
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| | |
|---|---|
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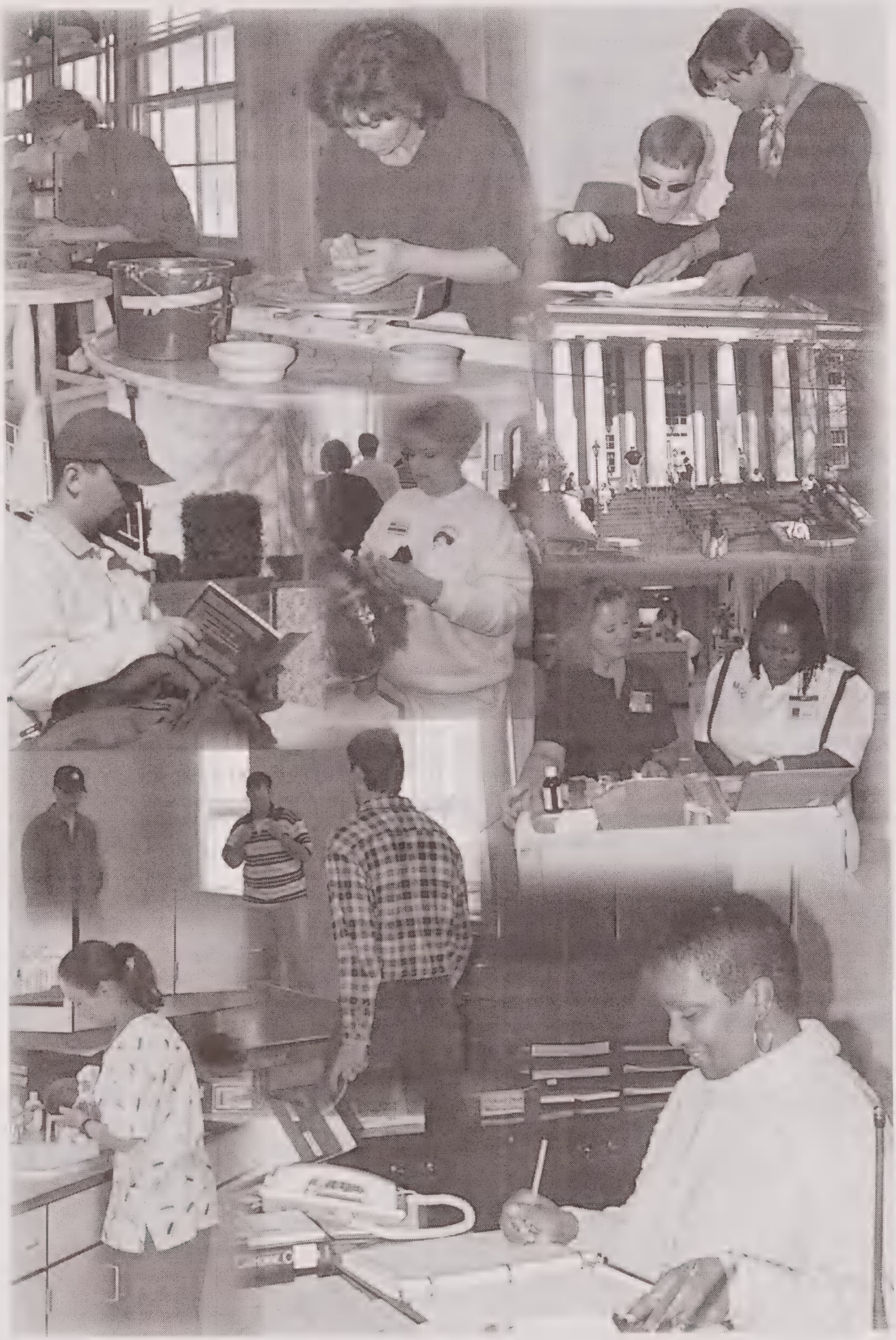

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